

# EASTERN

M I C H I G A N U N I V E R S I T Y

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An aerial photograph of the Eastern Michigan University campus. The image shows several large, multi-story brick buildings with numerous windows. A prominent feature is a tall, dark, cylindrical tower with a conical roof. The campus is surrounded by lush green trees and a network of paved walkways. The overall scene is a well-maintained university environment.

**Undergraduate Catalog**  
**1999 - 2001**

EASTERN MICHIGAN UNIVERSITY  
BULLETIN  
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137<sup>TH</sup> EDITION



**Accredited by:**

The North Central Association of Colleges and Schools  
Steven D. Crow, Director  
159 North Dearborn  
Chicago, IL 60601  
**312.263.0456**

For information on accreditation and to review copies of accreditation documents, contact the Associate Vice President for Academic Affairs, 106 Welch Hall, Eastern Michigan University, Ypsilanti, MI 48197.

Volume CXXXVII Number 1

The contents of this Catalog are subject to revision at any time. The University's reservation of right to revise the Catalog includes, but is not limited to, the right to change fees, courses, policies, programs, services, and personnel as it deems necessary.

The University's official Undergraduate and Graduate Catalogs can be found on-line at [www.emich.edu/public/catalogs/default.html](http://www.emich.edu/public/catalogs/default.html).

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The paper catalog is solely a reference document. Consult the official catalog at [www.emich.edu/public/catalogs/default.html](http://www.emich.edu/public/catalogs/default.html) for the latest official catalog and program information.

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# INSTRUCTIONAL YEAR

## 1999-2000 University Calendar

### Fall Semester 1999

August 28, Sat.	Freshman Res. Hall Move-In Day
August 28, 29, 30, Sat.-Mon.	Freshman Orientation
August 29, 30, Sun., Mon.	Upperclass Res. Hall Move-In Days
September 1, Wed.	Beginning of Classes
September 3, Fri.	No Classes After 5 p.m.
September 4-6, Sat., Sun., Mon.	Labor Day Recess University Closed (Library Open Sat., Sun.)
September 7, Tues.	Resumption of Classes
November 24, Wed.	No Classes; Campus Open
November 25-28, Thurs.-Sun.	Thanksgiving Recess- University Closed (Library Open Fri., Sat., Sun.)
November 29, Mon.	Resumption of Classes
December 13, Mon.	Last Day of Classes
December 14-20, Tues.-Mon.	Final Examinations
December 19, Sun.	Commencement
December 21, Tues.	Close of Fall Semester

### Winter Semester 2000

January 4, Tues.	Move-In Day and Winter Orientation
January 5, Wed.	Beginning of Classes
January 17, Mon.	MLK Jr. Day-No Classes; Campus Open
February 28- March 5, Mon.-Sun.	Winter Recess- No Classes; Campus Open
March 6, Mon.	Resumption of Classes
April 21-23, Fri., Sat., Sun.	Spring Recess- University Closed (Library Open)
April 24-28, Mon.- Fri.	Final Examinations
April 29, Sat.	Close of Winter Semester
April 30, Sun.	Commencement

### Spring Session 2000

May 2, Tues.	Move-In Day
May 3, Wed.	Beginning of Classes
May 29, Mon.	Memorial Day-University Closed
June 15, Thurs.	Last Day of 6-Week Classes
June 23, Fri.	Last Day of 7 1/2-Week Classes

### Final Examinations for 6- and 7 1/2-Week Classes

(Exams Will Be Held During the Last Scheduled Class Session)

June 24, Sat.	Close of Spring Session
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### Summer Session 2000

June 25, Sun.	Move-In Day
June 26, Mon.	Beginning of Classes
July 4, Tues.	Independence Day-University Closed
August 3, Thurs.	Last Day of 6-Week Classes
August 17, Thurs.	Last Day of 7 1/2-Week Classes

### Final Examinations for 6- and 7 1/2-Week Classes

(Exams Will Be Held During the Last Scheduled Class Session)

August 18, Fri.	Close of Summer Session
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## 2000-2001 University Calendar

### Fall Semester 2000

August 26, Sat.	Freshman Res. Hall Move-In Day
August 26-28, Sat.-Mon.	Freshman Orientation
August 27, 28, Sun., Mon.	Upperclass Res. Hall Move-In Days
August 30, Wed.	Beginning of Classes
September 1, Fri.	No Classes After 5 p.m.
September 2-4, Sat.-Mon.	Labor Day Recess University Closed (Library Open Sat., Sun.)
September 5, Tues.	Resumption of Classes
November 22, Wed.	No Classes; Campus Open
November 23-26, Thurs.-Sun.	Thanksgiving Recess- University Closed (Library Open Fri., Sat., Sun.)
November 27, Mon.	Resumption of Classes
December 12, Tues.	Last Day of Classes
December 12-18, Tues.-Mon.	Final Examinations
December 17, Sun.	Commencement
December 19, Tues.	Close of Fall Semester

### Winter Semester 2001

January 7, Sun.	Move-In Day and Winter Orientation
January 8, Mon.	Beginning of Classes
January 15, Mon.	MLK Jr. Day-No Classes; Campus Open
March 5-11, Mon.-Sun.	Winter Recess- No Classes; Campus Open
March 12, Mon.	Resumption of Classes
April 13-15, Fri., Sat., Sun.	Spring Recess- University Closed (Library Open)
April 16, Mon.	Resumption of Classes
April 20, Tues.	Last Day of Classes
April 21-27, Sat.- Fri.	Final Examinations
April 28, Sat.	Close of Winter Semester
April 29, Sun.	Commencement

### Spring Session 2001

May 6, Sun.	Move-In Day
May 7, Mon.	Beginning of Classes
May 28, Mon.	Memorial Day-University Closed
June 15, Fri.	Last Day of 6-Week Classes
June 27, Wed.	Last Day of 7 1/2-Week Classes

### Final Examinations for 6- and 7 1/2-Week Classes

(Exams Will Be Held During the Last Scheduled Class Session)

June 28, Thurs.	Close of Spring Session
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### Summer Session 2001

July 1, Sun.	Move-In Day
July 2, Mon.	Beginning of Classes
July 4, Wed.	Independence Day-University Closed
August 10, Fri.	Last Day of 6-Week Classes
August 22, Wed.	Last Day of 7 1/2-Week Classes

### Final Examinations for 6- and 7 1/2-Week Classes

(Exams Will Be Held During the Last Scheduled Class Session)

August 24, Fri.	Close of Summer Session
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## Welcome

Welcome to Eastern Michigan University. This institution's proud heritage has now become YOUR future—a future in which to learn and grow, to advance toward a career and service, and to seek counsel and advice. Here you will find new friends from Michigan, other states, and around the world.

EMU's focal point is southeastern Michigan—an area surrounded by small cities and towns of which its hometown, Ypsilanti, with 25,000 people, is one. Thirty miles to the east is Detroit, industrial and business hub of the Great Lakes; and an equal distance to the south is Toledo, northernmost city on the Ohio border and a new area of student growth.

Advantageous to all students are not only the cultural activities of the metropolitan areas, both within a 45-minute drive from the campus, but also the resources of its sister city, Ann Arbor, home of the University of Michigan. EMU offers its own cultural opportunities through the artistic accomplishments of its students in theatre and drama, through its extensive music and fine arts programs, and also through its Office of Campus Life, which brings well known speakers and entertainers to its auditoriums and classrooms.

The campus is close enough to home for many students to commute, but both local and distant students choose to live in EMU's residence halls and apartment complexes.

Major highways crisscross the southeastern Michigan area. Bus service is available within and from outside Ypsilanti, and Detroit Metropolitan Airport is 30 minutes away. Feeder highways are I-94, which borders Ypsilanti, and US-23, which passes between Ypsilanti and Ann Arbor, connecting with the Ohio Turnpike to the south and other interstate highways to the north. I-275 provides quick and convenient access from Detroit's northwestern suburbs. More than half the population of the state of Michigan lives within 50 miles of EMU's campus.

Orientation is provided for all incoming students.

Once on campus, the University online catalog ([www.emich.edu/public/catalogs](http://www.emich.edu/public/catalogs)) becomes the student's bible of information as personal programs are planned with the help of University counselors and faculty advisers.

## University Profile

Founded in 1849 as a teacher-training school, Eastern Michigan University was not only the first such institution west of the Alleghenies, but also the state's first tax-supported co-educational college. Once composed of a single building, Eastern has evolved into a comprehensive educational institution—an institution firmly committed to *shaping the way America learns*.

The University offers bachelor's, master's and specialist's degrees, as well as a doctoral degree in, appropriately, educational leadership. In all, more than 400 academic majors, minors and concentrations are delivered through Eastern's five degree-granting colleges and its graduate school.

During its formative years, Michigan State Normal School, as Eastern was conceived, certified thousands of teachers and developed a broad-based academic curriculum. This helped prepare the institution for university status, which it achieved in 1959. Within that new university, three colleges emerged: Education, Arts and Sciences, and the Graduate School.

The University continued to evolve in subsequent years, adding the College of Business in 1964, the College of Health and Human Services in 1975, and the College of Technology in 1980. More recently, Eastern's Extended Programs entity has taken root. Its diverse elements include Continuing Education, the Centers for Corporate Training, the World College, and a host of community-focused institutes.

In response to this growth, Eastern expanded its 275-acre campus on the south side of the Huron River with an additional 182 acres west of campus, primarily for student residences and athletic facilities. In 1989 the University added Eagle Crest—a magnificent conference center, golf course and resort on the banks of nearby Ford Lake. Shortly thereafter, the Gary M. Owen College of Business Building opened its doors in downtown Ypsilanti.

One of the nation's 50 largest universities, Eastern produces more professional educators than any school in the nation. Its enrollment exceeds 23,000 and its total annual budget is some \$170 million. In recent years, the University has enhanced its learning environment through more than \$213 million in structural initiatives, including \$41 million toward the Bruce T. Halle Library; \$29.6 million toward the Convocation Center; \$14.5 million toward the College of Health and Human Services Building; and \$13.8 million toward the John W. Porter College of Education Building.

Today the campus is graced by some 18 miles of walkways and jogging trails, and more than 200 acres of scenic lawn and wooded areas. The larger community consists of Ypsilanti and neighboring Ann Arbor, a community at once educationally rich, culturally vibrant, and technologically sophisticated.

Eastern's student body comprises both full- and part-time students, and is representative of the national trend of mature adults returning to college to enhance their career opportunities in an ever-changing world. The student body is 58 percent female at the undergraduate level and 65 percent female at the graduate level. Cultural diversity has long been a hallmark of the University, and Eastern's enrollment reflects this: Some 15 percent of the student body is either African American, Hispanic, Asian, or Native American. Eastern is also home to more than 200 student activities and organizations, indicative of the University's belief that valuable learning opportunities occur both inside *and* outside the classroom.

Eastern belongs to the Mid-American Conference and competes in the NCAA Division I category of men's and women's sports. The University's athletic tradition is a rich one—a tradition that includes both team and individual championships as well as Olympic gold medals. Additionally, Eastern student-athletes have gone on to professional excellence in such sports as football, baseball and basketball.

For additional information, please call us: 800.GO-TO-EMU

Or, visit our Web site at [www.emich.edu](http://www.emich.edu)

# Eastern Michigan University Mission

Eastern Michigan University is committed to distinguishing itself as a comprehensive educational institution that prepares people and organizations to adapt readily to a changing world. Central to this mission are:

- providing an exceptional learning environment;
- applying new technologies to teaching, learning, and research;
- expanding knowledge and providing leadership through research, contract learning, and public service; and
- continually interpreting and responding to a changing regional, national, and global society.

## Values

Eastern Michigan University's mission and philosophy are built upon shared values that define and nourish the intellectual, ethical, and aesthetic environment.

These values are:

### Excellence

The University's principal responsibility is to provide academic programs in a learning environment that promotes academic and personal excellence.

The University, in all of its activities, encourages the achievement of excellence by all members of its various constituencies.

### Respect

The University recognizes that wisdom, sound judgment, tolerance, and respect for other persons, cultures, and ideas are hallmarks of an educated person.

The University seeks to demonstrate, through all its programs and activities, appreciation of human diversity and to maintain an atmosphere of tolerance and mutual respect that will nourish human liberty and democratic citizenship.

### Scholarship

The University promotes and encourages continual research and creative activity by all its constituencies. Through such activity, participants remain intellectually alive, expand their fields of knowledge, enrich learning experiences, and bring academic recognition to the community. The intellectual and personal growth of individuals is a central purpose. Knowledge and learning are both the University's products and its processes.

### Opportunity

The University is committed to providing opportunities for learners of varying interests, abilities, backgrounds, and expectations.

It seeks to attract, serve, and accommodate a highly qualified and pluralistic student body, drawn from a variety of ethnic, social, and economic backgrounds and to make a special effort to provide access to the campus' educational opportunities for non-traditional students and underrepresented populations.

### Community

The University strives to create and nurture a community that fosters mutual trust and respect for the open and amicable expression of differences.

### Service

The University endeavors to provide service for the public good. It encourages all constituents to be concerned about the welfare of humanity and to engage in public service.

The University is committed to developing and strengthening collaborative initiatives with the industrial, business, civic, and educational world.

## Freedom

The University respects and protects personal and academic freedom. It seeks to provide an environment that facilitates involvement in intellectual and cultural activities and encourages formal and informal interaction between and among students, faculty, staff, administration, and community.

## Integrity

Intellectual, academic, financial, and operational integrity are critical to the University's survival and effectiveness.

## Leadership

The University strives to provide leadership in addressing the educational and social issues confronting the people and organizations in our society.

It promotes leadership and development activities that enhance educational and industrial opportunities for meeting this charge.

## Empowerment

The University community is empowered to do what is right and necessary to achieve the University's mission.

## PHILOSOPHY

The University is dedicated to improving the quality of life within the global community it serves through teaching, contract learning, research, and service.

As an integral part of the state-supported public education system, the University is responsible for providing leadership in developing creative, innovative, and collaborative approaches to meet learning and research demands created as a result of a dramatically changing world.

The University recognizes that an educated populace is the essential ingredient for the successful improvement of humankind. It is dedicated to:

- providing opportunities for professional, intellectual, and personal growth;
- preparing individuals for careers and professions;
- encouraging all University members to be concerned about the welfare of the campus, local, and world communities;
- assisting organizations to function effectively in a global economic environment; and
- instilling in all persons a commitment as leaders, to engage in public service.

The University seeks to provide an intellectual, social, and cultural environment that attracts, serves, and empowers a pluralistic community.

## Guiding Principles

Guiding principles form the framework against which the University tests its effectiveness.

In all programs, activities, and services, the University seeks to be:

### Approachable

Psychological barriers that impede participation are eliminated. People and organizations are valued as the University's resources, products, and customers.

### Accessible

Programs and activities of the University are open to all qualified persons without regard to race, religion, marital status, sex, sexual orientation, age, national or ethnic origin, political belief, or physical handicap.

The University seeks to demonstrate, through all its programs and activities, its appreciation of human diversity and to maintain an atmosphere of tolerance and mutual respect that will nourish human liberty and democratic citizenship.

### **Affordable**

The University is committed to ensuring that those individuals who are qualified and who desire to participate are not discouraged from doing so because of financial resources, time restraints, or physical distance.

The University seeks to provide financial aid for all constituencies, to be sensitive to changing demands in the educational marketplace, and to deliver educational services in non-traditional ways and settings.

### **Applicable**

Programs are designed to broaden perspectives, enrich awareness, deepen understanding, establish disciplined habits of thought, respond to changes in the workplace and society, and help develop individuals who are informed, responsible citizens.

### **Attainable**

Recognizing that various constituencies have different needs, programs, activities, and services must be flexible so that all people have the opportunity to participate and to achieve their goals or purpose.

### **Collaborative**

To utilize financial and human resources effectively, all programs, activities, and services should seek to develop linkages with internal and external constituencies.

The University must continue to develop new partnerships with business, industry, education, and government, to define mutual goals and benefits, and to meet its responsibilities to the global community.

### **Quality**

Quality is the first priority in all programs, activities, and services.

## **UNIVERSITY GOVERNANCE**

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 taxes paid by the citizens of Michigan.

Current members of the board of regents are Philip A. Incarnati, Flint, chair; William J. Stephens, West Bloomfield, vice chair; Joseph E. Antonini, Troy; Robert A. DeMattia, Plymouth; Rosalind E. Griffin, Farmington Hills; Donna R. Milhouse, Detroit; Michael G. Morris, Northville; and Carl D. Pursell, Plymouth.

### **Civil Rights Policy**

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

### **Equal Opportunity and Affirmative Action Policies**

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

### **Title IX of the Education Amendments of 1972**

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.

### **Rehabilitation Act of 1973**

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

### **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, date and place of birth, major field of study, participation in recognized activities and sports, weight and height (if a member of an athletic team), dates of attendance, degree and awards received and most recent previous educational agency or institution. Registration documents of student organizations that contain the names and addresses of the officers and the statement of purpose of

the organization also are considered public information. These documents are available in the Office of Campus Life Programs.

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

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

#### **Notification of Student Rights under FERPA**

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

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

Student should submit written requests to the EMU Office of Records and Registration, identifying the record(s) they wish to inspect. A University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

**2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.**

Students may ask the University to amend a records 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 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; electronic-mail address; date and place of birth; major fields of study; class schedule; class roster; participation in rec-

ognized 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 at the Office of Records and Registration within 14 days after each term begins.

Student who do not want to be included in the annual EMU Student Directory should complete a Directory Exclusion Card. Cards can be picked up from University Publications, Housing and Dining Services, Registration, and the Library Copy Center. They must be turned in by September 15 to the Library Copy Center or to University Publications. Completing the exclusion card will remove the student's name, address, and phone number from the current and subsequent telephone directories.

**4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by EMU to comply with requirements of FERPA. The name and address of the office that administers FERPA is:**

Family Policy Compliance Office  
U.S. Department of Education  
600 Independence Avenue, SW  
Washington, D.C. 20202-4605



## Colleges and Departments

*Eastern Michigan University seeks an atmosphere of community, trust, and commitment among all segments of its campus—students, faculty, and staff. Its goals are to encourage instructional growth, research, scholarship, and artistic pursuits and to provide service to the local community, the state, nation, and world. It offers undergraduate programs in the colleges and departments listed below as well as graduate study in selected disciplines which may lead to the master's or specialist's degrees.*

**College of Arts and Sciences:** African American Studies; Art; Biology (Botany, Zoology); Chemistry—accredited American Chemical Society; Communication and Theatre Arts (Radio-TV-Film); Computer Science; Economics; English Language and Literature (Journalism); Foreign Languages and Bilingual Studies; Geography and Geology; History and Philosophy; Mathematics; Music—accredited by the National Association of Schools of Music; Physics and Astronomy; Political Science—accredited by the National Association of Schools of Public Affairs and Administration for its public administration programs; Psychology; Sociology, Anthropology, and Criminology; Women's Studies.

**College of Business:** accredited by AACSB—The International Association for Management Education; Accounting; Finance and Computer Information Systems; Management; Marketing.

**College of Education:** accredited by the National Council for Accreditation of Teacher Education for the preparation of elementary and secondary teachers and school service personnel; Leadership and Counseling—accredited by the Council for Accreditation of Counseling and Related Programs; Health, Physical Education, Recreation and Dance—accredited by the National Recreation and Parks Association for its recreation and park management curriculum; Teacher Education; Special Education—accredited by the American Speech-Language-Hearing Association for its Speech-Language Pathology Program for Teachers of the Speech and Language Impaired and by the Council on Education of the Deaf for the Hearing Impaired Program.

**College of Health and Human Services:** Associated Health Professions (Health Administration—member of the Association of University Programs in Health Administration, Clinical Laboratory Sciences—accredited by the National Accrediting Agency for Clinical Laboratory Sciences, Occupational Therapy—accredited by the American Occupational Therapy Association's Accreditation Council for Occupational Therapy Education (ACOTE); Human, Environmental and Consumer Resources—accredited for its Dietetics Program by the American Dietetic Association and accredited by the Foundation for Interior Design Education and Research (FIDER) for its interior design program; Nursing—accredited by the National League for Nursing; Social Work—accredited by the Council on Social Work Education.

**College of Technology:** Business and Technology Education (Office Technology/Administrative Management, Office Technology/Legal Assistant — accredited by the American Bar Association, Office Technology/Network and Information Technology Administration, Marketing Education, Industrial-Vocational Education, and Technology Education — Folio approved by the National Council for Accreditation of Teacher Education/International Technology Education Association/Council on Technology Teacher Education); Industrial Technology (Construction Management — accredited by American Council for Construction Education, Computer-Aided Design — accredited by the National Association of Industrial Technology, and Manufacturing with concentrations in Computer-Aided Manufacturing, Manufacturing Technology, Plastics — all accredited by the National Association of Industrial Technology, and Manufacturing (transfer)); and Interdisciplinary Technology (Aviation Management Technology, Communication Technology, Facility Management, Industrial Distribution, Polymers and Coating Technology — all accredited by the National Association of Industrial Technology, Bilingual Vocational Teacher Education, Bilingual Office Teacher Education, and Bilingual Marketing Teacher Education).

## ADMISSION

*The sections on Tuition and Fees, Financial Aid, Academic Procedures and Graduation Requirements that follow 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. Separate admission is required for the College of Business, the College of Education as well as for the Nursing and Occupational Therapy programs. Some academic programs are designed to include courses from more than one college.

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

APPLICATION FOR ADMISSION to the University requires completion of an admission application, submission of an official high school transcript and/or official college transcript and a \$25 non-refundable application fee. Required supporting documentation may vary depending on the category of admission.

FRESHMAN APPLICANTS entering college for the first time must submit official high school transcripts with grades posted through the 6th semester of high school, official college transcripts if dual enrolled in high school and college, standardized test results from either the American College Test (ACT) or Scholastic Assessment Test (SAT) and the \$25 non-refundable application fee. Evidence of graduation is required after admission (if still in high school). Evidence of graduation or results of the General Education Diploma (GED) test is required if the applicant is no longer attending high school. Applicants over 21 years of age should refer to the non-traditional category.

Some students may be offered admission to the PASS (Promote Academic Survival and Success) program. Special requirements for this program may be discussed with an admission officer or an academic advisor. Students not qualifying for regular admissions may be considered for the Summer Incentive Program (SIP). Admission to both programs is by University selection only and may include more documentation.

TRANSFER APPLICANTS 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 equivalent GED). 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.

NON-TRADITIONAL STUDENTS who are 21 years of age or older and have a high school diploma or GED but have not attempted college work previously may be considered for admission without further requirements. Evidence of the high school diploma or General Education Diploma is required. Non-traditional students may be required to take selected tests for advising and course placement purposes.

VETERANS who have served in the U.S. Armed Forces for more than 181 consecutive days will be admitted upon receipt of the high school transcript or its equivalent and a DD214 document verifying military duty. Veterans released from active service for reasons of disability will

be considered as having met the 181 consecutive day requirement. If the veteran has attempted college work since release from active duty or while on active duty, the application will be reviewed as that of a transfer student.

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

**SECOND BACHELOR'S DEGREE:** This option is chosen by those already holding a bachelor's degree from an accredited college or university.

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

**INTERNATIONAL STUDENT APPLICANTS** are welcomed by the University, which is authorized under federal law to enroll non-immigrant alien students. They may apply for admission to any semester and will need the following documentation in support of the application.

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

Undergraduate foreign student's English proficiency requirements are listed under the Department of Foreign Languages and Bilingual Studies.

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

## POST-BACCALAUREATE ACADEMIC OPTIONS

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

### SECOND BACHELOR'S DEGREE

Students who obtained their bachelor's degree from an institution other than Eastern Michigan University should apply as a second bachelor's candidate through the Admissions Office, 401 Pierce Hall. The Office requires an application, a \$30 non-refundable application fee, and official transcripts from each college, university, or other post-secondary school attended.

Students who have obtained a bachelor's degree from EMU but who now wish to obtain another major, minor, or a different bachelor's degree (i.e. a student with an EMU bachelor of science degree who wishes to pursue a bachelor of arts degree), should re-enroll as a Second Bachelor's candidate through the Records Office, 302 Pierce Hall).

After the admission or re-enrollment process is complete, the prospective candidate should make an appointment with the coordinator of Second Bachelor's Degree Programs in the Academic Advising Center, 301 Pierce Hall (734.487.2171) for evaluation of transcripts and devel-

opment of a program of study. The program is approved by the appropriate academic department and is the basis for degree completion.

### TEACHER CERTIFICATION

Students who possess a bachelor's degree and are seeking teacher certification should contact the Teacher Certification Office in the College of Education (734.487.2075) for an advising appointment. Candidates whose undergraduate GPA was less than 2.5 should apply as a Second Bachelor's candidate (see Second Bachelor's Degree). Candidates whose undergraduate GPA was 2.5 or better should apply using the graduate application.

### RE-ENROLLMENT

Former EMU students desiring to re-enroll at EMU after an absence of two years should make application in the Academic Records Office, 302 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.

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

Students who have attended any institution of higher education since being enrolled at Eastern Michigan University must have an official transcript sent from that institution to the Academic Records Office.

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

## Alternative Credit Options

Eastern Michigan University offers students the opportunity to earn up to 30 hours of academic credit by examination and/or by portfolio. In some instances, students may enroll immediately in advanced courses through various credit-by-examination programs. Especially high test scores may warrant additional academic credit and/or higher placement.

These programs include:

1. Advanced Placement (AP)
2. International Baccalaureate (IB)
3. College Level Examination Program (CLEP)
4. Credit by examination (available through academic departments when CLEP is not available)
5. Validation (may be required to transfer two-year college credit for 300- and 400-level EMU courses)
6. Portfolio-assisted Prior Learning Assessment (PLA)—available through participating academic departments

The table that follows illustrates academic credit available by department for AP, IB, and CLEP test scores, with the following limitations:

1. Credit may not be duplicated for separate tests and/or completed courses covering the same subject matter. Credit may be denied if the student has already successfully completed a higher-level course in the same subject or enrolled in a similar course.
2. Credit by examination may be awarded up to a maximum of 30 credit hours.
3. The International Baccalaureate Diploma does not equate automatically with sophomore standing, nor does it automatically waive general education requirements.

For more information, contact the Academic Advising Center.

Students who submit their AP or IB scores to Eastern Michigan University are assured of at least three hours of academic credit for a

score of 3 or higher on an AP exam and 4 or higher on the higher-level IB exam.

Credit by examination and validation is available through academic departments when CLEP examinations are not appropriate in assessing the student's previous education and/or life experiences.

Credit by examination regulations are:

1. The applicant must be admitted to Eastern Michigan University.
2. Prerequisites must be met before credit by examination may be considered for any course.
3. Credit normally will not be awarded for any course below the level of a course for which the student already has credit or that the student is taking or has taken.
4. Courses such as Workshops, Special Topics, Seminars, and Directed or Independent Studies are excluded from credit by examination.
5. Academic departments may exclude certain other courses from credit by examination.
6. A student who fails to pass such an examination will not be permitted to take another examination in the same course until four months have elapsed, and until the student has presented evidence of sufficient further study to justify reexamination.

Validation regulations are implemented after all college-parallel credit earned at accredited two-year colleges has been recorded on the student's official EMU record and the transfer has been completed. If further validation of two-year college credit is required for 300- and 400-level EMU courses, two ways to achieve this are:

1. Satisfactory completion of the next more advanced course in the series as designated by the department head.
2. Passing a comprehensive examination in the course for which EMU validation is requested.

Procedures for credit by examination and validation are:

1. Pick up, fill out, and return application for credit by examination/validation to the Academic Records Office. Eligibility to sit for credit by examination/validation will be determined by the Office of Records and Registration, 303 Pierce.
2. Take paper provided by the Office of Records and Registration to the head of the department in which the course is offered. The department head will evaluate the request and make one of the following decisions:
  - a. Grant permission for credit by examination/validation.
  - b. Deny permission for credit by examination/validation.
  - c. Hold request for further investigation.
3. Once permission is granted and the time and place of exam are agreed upon, the student will validate the permission form by paying the fee to the EMU Cashier's Office.
4. The student will present the validated permission form to the instructor prior to taking any exam or activity for credit by examination/validation.
5. After the instructor evaluates student performance and indicates P/F on permission form, a copy of the written examination or explanation of the activity as well as the instructor's total evaluation will be placed on file in the office of the department head. The department head will sign the permission form indicating receipt of instructor's evaluation.
6. Department head will forward the permission form to the Office of Records and Registration, 303 Pierce for posting to the student's record.

and validation are not appropriate in assessing the student's previous learning.

Call the Office of Prior Learning Assessment at 734.487.9801 or 800.777.3521 for additional information.

Academic standards for Portfolio-assisted Prior Learning Assessment are:

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

Procedures for Portfolio-assisted Prior Learning Assessment are:

1. The applicant contacts the PLA Office for information about the PLA process and for a registration form for the required course, AADV 279.
2. The applicant must be admitted to Eastern Michigan University.
3. The student completes AADV 279 before requesting credit through the process of portfolio-assisted prior learning assessment.
4. The student compiles portfolios to present for assessment within one year of completion of AADV 279.
5. The student presents the master portfolio and departmental portfolios to the Office of Prior Learning Assessment for review; upon successful review, the PLA Office issues appropriate forms.
6. The student pays the required assessment fee to Eastern Michigan University.
7. The Office of Prior Learning Assessment distributes portfolios to department heads 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 Academic Records Office of awarded credit for posting to the student's record.

CLEP examinations as listed on the following chart are administered through the Academic Advising Center, 301 Pierce Hall.

## Prior Learning Assessment

Portfolio-assisted Prior Learning Assessment (PLA) is available through participating academic departments when CLEP, credit by examination,

## Academic Credit Available By Departments

Department	Exam/Subject	Min Score.	Credit Awarded	Placement	Departmental Credit-by-exam Available
Art	AP History of Art	3	FA 101 (3)	FA 107	with special permission
		4	FA 108 (3)		
	AP Studio Art: General portfolio or drawing portfolio	3	FA 179 (3) or FA 379 (3)	See department head	
NOTE: An additional three credit hours may be awarded to art majors and minors through departmental evaluation of art portfolio.					
Biology	CLEP General Biology	46	BIOL 105 (4) -General education/elective credit only	BOTN 221 or ZOOL 222	with special permission
	AP General Biology	3	BIOL 105 (4) -General education/elective credit only	BOTN 221 or ZOOL 222	
	IB (Higher Level)	4	BIOL 105 (4) -General education/elective credit only	BOTN 221 or ZOOL 222	
Chemistry	CLEP General Chemistry	48	CHEM 121 (3)	CHEM 122	with special permission
		58	CHEM 121 (3) and CHEM 123 (3)	CHEM 122	
	AP Chemistry	3	CHEM 121 (3)	CHEM 122	
		4	CHEM 121 (3) and CHEM 123 (3)	CHEM 122	
Computer Science	CLEP Information Systems & Computer Programming	52	COSC 137 (3)		yes
	AP Computer Science A	3	COSC 138 (3)		
	AP Computer Science AB	4	COSC 138 (3) and COSC 238 (3)		
Economics	CLEP Intro to Macroeconomics	50	ECON 201 (3)	ECON 202	yes
	CLEP Intro to Microeconomics	50	ECON 202		
	AP Macroeconomics	4	ECON 201 (3)		
	AP Microeconomics	4	ECON 202 (3)		
English	CLEP Freshman College Composition**	50	ENGL 121 (3)	ENGL 225	yes
		65	ENGL 121 (3) and ENGL 225 (3)	any 200-300 level English course	
	English Literature**	50	LITR 100 (3)	LITR 101, 102 or 103	
		65	LITR 101 (3) and LITR 100 (3)	any 200-300 level LITR course	
	AP English Language	3	ENGL 121 (3)	any 200-300 level English course	
		4	ENGL 121 (3) and ENGL 225 (3)	any 200-300 level English course	
Foreign Languages***	AP English Literature	3	LITR 100 (3)	LITR 101, 102 or 103	
		4	LITR 100 (3) and 101 (3)	any 200-300 level LITR course	
	AP French Language or French Literature	3	FRNH 121 (5)	FRNH 122	yes
		4	FRNH 122 (5)	FRNH 221	
	German Language	3	GERN 121 (5)	GERN 122	
		4	GERN 122 (5)	GERN 221	
***additional credit may be offered to intended majors or minors through departmental placement examinations.	AP Latin: Vergil or Catullus-Horace	3	LATN 121 (5)	LATN 122	
		4	LATN 122 (5)		
	Spanish Language or Spanish Literature	3	SPNH 121	SPNH 122	
		4	SPNH 122 (5)	SPNH 201	
	CLEP College French	42	FRNH 121 (3)	FRNH 122	
		45	FRNH 121/122 (6)	FRNH 221	
	College-level German	44	GERN 121 (3)	GERN 122	
		54	GERN 121/122 (6)	GERN 221	
	College Spanish	45	SPNH 121 (3)	SPNH 122	
		54	SPNH 121/122 (6)	SPNH 201	
History	CLEP American History I	50	HIST 123 (3)	Most courses in the department	yes
	American History II	50	HIST 124 (3)		
	Western Civ. I	50	HIST 101 (3)		
	Western Civ. II	50	HIST 102 (3)		
	AP United States History	3	HIST 123 (3)	HIST 124 (3)	
		4	HIST 123 (3) and HIST 124 (3)		
	AP European History	3	HIST 101 (3)	HIST 102	
	4	HIST 101 (3) and HIST 102 (3)			
Management	CLEP Intro to Bus. Management	50	MGMT 382 (3)	MGMT 386	yes
Marketing	CLEP Intro to Business Law	55	LAW 293 (3)		yes
Mathematics	CLEP College Algebra	51	MATH 105 (3)	MATH 118, 119, 120 or 121	yes
	Trigonometry	54	MATH 107 (2)	MATH 120 or MATH 122	
	AP Calculus AB	3	MATH 120 (4)	MATH 121	
	Calculus BC	3	MATH 120 (4) and MATH 121 (4)	MATH 122 or MATH 223	
Music	AP Music Listening and Literature	3	MUSC 107 (2)		with special permission
	Music Theory	3	MUSC 100 (3)		
Physics	AP Physics B	3	PHY 221 (4)	PHY 222	with special permission
		4	PHY 221 (4) and PHY 222 (4)		
	AP Physics C	3	PHY 223 (5) and PHY 224 (5)		
Political Science	CLEP American Government	50	PLSC 112 (3)	most upper-level courses	yes
	AP American Gov't and Politics	3	PLSC 112 (3)		
	AP Comparative Govt. and Politics	3	PLSC 211 (3)		
Psychology	CLEP Introductory Psychology	50	PSY 101 (3)	Most upper-level courses	yes
	AP Psychology	3	PSY 101 (3)		
Sociology	CLEP Introduction to Sociology	50	SOCL 105 (3)	SOCL 202 or SOCL 204	yes

\*\*essay required



# University Honors Program

**William Miller**  
**Director**  
**Jones-Goddard Community of Scholars**  
**734.487.0341**  
**E-mail: phi\_miller@online.emich.edu**

Entering first-year, transfer, and currently enrolled students with excellent academic records may apply for admission to the University Honors Program. Admission is based on such factors as grade point average, standardized test scores, letters of recommendation, and a personal essay.

Honors certification may be pursued either on the general education level, in departments or professional programs, or both. Graduation with honors requires a cumulative GPA of at least 3.3, the completion of either 18 hours of honors credit in general education or 12 hours of departmental honors credit, including the senior thesis or project; and community service. Students who complete the program are appropriately recognized by special designations on their transcripts, certificates of achievement, the honors medallion, and letters of recommendation from the honors director explaining their accomplishments.

Other benefits include housing in the Jones-Goddard Community of Scholars, early registration, extended library loans, and academic and career advising support.

For further information, contact the University Honors Program Office, 250 Jones Hall, Community of Scholars, 734.487.0341, e-mail: emu\_honors@online.emich.edu.

# Tuition and Fees

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

## Registration

Official registration day is the day students complete the initial registration for the semester or session. Students must be registered before the semester is half over.

The registration fee is \$40 for each semester. This service fee is assessed at the time the student registers.

An additional late registration fee of \$50 is charged to students who do not complete registration prior to the official first day of classes each semester.

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

Cancellation of registration by a student who decides not to return to EMU after registering in advance for classes must be initiated by the student on a signed cancellation-of-registration form either in person or by letter to the Registration Office, 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 tuition and 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 100- through 400-level courses; graduate tuition is assessed for all 500- and 600-level courses.

Off-campus tuition rates are the same as on-campus tuition rates.

Tuition for auditing classes is the same for credit classes.

### 1999-2000 Michigan Resident Rates, per credit hour:

Undergraduate courses lower level (100-200): .....	\$101.50
Undergraduate courses upper level (300-400): .....	\$108.25
Graduate courses (500-600): .....	\$157.00
Doctoral assessment (700 and above): .....	\$196.00

### 1999-2000 Non-Resident Rates, per credit hour:

Undergraduate courses lower level (100-200): .....	\$265.00
Undergraduate courses upper level (300-400): .....	\$300.00
Graduate courses (500-600): .....	\$350.00
Doctoral assessment (700 and above): .....	\$400.00

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

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

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

F. Migrants

Migrant status is one factor considered when determining if a student is domiciled in Michigan for tuition purposes. Michigan migrants are defined as individuals who have made their livelihood in seasonal work in the state of Michigan, and have traveled interstate for this purpose. Migrant students shall be considered Michigan residents for tuition purposes if they or their parents or legal guardian were employed in Michigan for at least two months during each of three of the preceding five years. Verification of employment as migrant workers should be secured from the Michigan Farm Labor and Rural Manpower Services Office. Other appropriate evidence also may be used by migrant workers to establish their status.

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

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

H. U.S. Military Service Veteran

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

II. GUIDELINES AND CRITERIA FOR DETERMINING RESIDENCE CLASSIFICATION

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

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

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

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

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

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

III. RECLASSIFICATION OF RESIDENCE STATUS

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

It shall be the responsibility of all students, prior to registering, to raise questions in the Student Accounting Office 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. Michigan residents can attend the University of Toledo at Ohio resident tuition rates but only if they reside in Monroe County.

NOTE: *The Residence Classification for Tuition Purposes Policy is currently under review and is subject to change by action of the Eastern Michigan University Board of Regents without prior notice and at any time.*

## Tuition and Fee Payment

Tuition and fee payment for fall and winter semesters may be made in two installments. There is no installment payment plan for spring and summer sessions. The exact due date is printed on the invoice from Student Accounting and is published in the Class Schedule Book for each semester. To ensure a correct billing address, it is the responsibility of the student to inform the University of any address changes by completing a change of address form in the Registration Office.

Only special billing addresses are processed by the Student Accounting office.

Eastern Michigan University accepts VISA and MasterCard credit cards in payment of tuition, fees, and room and board.

### Additional Tuition Payment Plan

EMU offers a 10-month payment plan through an outside agency for fall/winter semesters only. There is a nominal charge for using the plan, which can be used to cover tuition, required fees, and room and board costs.

The optional installment payment plan is offered in the fall and winter semesters only and is applicable to tuition and room and board. A minimum of 50 percent must be paid initially and the remainder by the eighth week of the semester. An installment service fee of \$20.00 is assessed with the first installment billing and a late payment fee of \$20.00 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 release of grades or certified transcript) 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 the obligation for payment of any balance from a prior semester.

Any exceptions shall be by authority of the vice president for business and finance.

Workshop sessions offered for two and three weeks during the spring and summer sessions are assessed the same registration and tuition fees as regular class sessions. However, a student enrolled in other course work during a session will not be assessed an additional registration fee for enrolling in a workshop during the same session.

An adjustment of 100 percent of the tuition assessment will be made to students who withdraw from a workshop prior to the close of business (5 p.m.) on the first day of the workshop. No other adjustment or refund will be granted.

## Fee Adjustments

Beginning with the start of classes, a program adjustment fee of \$10 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.

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

## Withdrawal from the University

A credit adjustment of 100 percent of tuition and fees for the fall and winter semesters, less an administrative 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 an administrative fee, will be made during the first four days of classes. Actual dates are printed in the Class Schedule for each semester and session.

A credit adjustment of 50 percent of tuition and fees for the fall and winter semesters less an administrative fee will be made to those students who withdraw from the University from the ninth through the nineteenth class day. For the spring and summer sessions, a 50 percent credit adjustment less an administrative fee will be made from the fifth through tenth 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 an administrative fee, will be made to those students, who withdraw from 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 eleventh through nineteenth class day of the session. Actual dates are printed in the class schedule for each semester and session.

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

### DECREASE IN ACADEMIC LOAD

For the fall and winter semesters 100 percent tuition credit less a \$10 program adjustment fee will be processed for those students who decrease their academic load prior to the ninth day of classes. For the spring and summer sessions, a 100 percent credit adjustment less a \$10 program adjustment fee will be made during the first four days of classes. Actual dates are printed in the Class Schedule for each semester and session.

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

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

1. Obtain a Tuition and Fee Appeal Application from the Student Accounting Office in 203 Pierce Hall (Ypsilanti, MI 48197). 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.
3. If, after following the procedures in steps 1 and 2, an acceptable solution is not achieved, a final written appeal may be made to the Controller (011 Welch Hall, Ypsilanti, MI 48197).

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 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 per credit hour, 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.

## Service Fees

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

A per-credit-hour Health Care fee is charged. Payment entitles the student to health care at reduced rates.

Students' spouses, faculty and staff and their spouses may avail themselves of Health Center services, but at somewhat higher rates. If they desire, these persons may pay the participation fee at Snow Health Center and become eligible for reduced rates. The complete schedule of health service fees is available at Snow Health Center.

A Student Government fee shall be assessed each student enrolling for one or more on-campus undergraduate courses. This fee shall be collected by the University as a separate charge when tuition is paid. The fee provides operating funds for the Student Senate and student organizations.

A per-semester Student Activity/Facility fee is assessed of all students not living in University housing. All students paying this fee are eligible for free admission to home basketball and football games. This fee is used to renovate and enhance campus facilities and the campus environment.

A graduation fee is charged 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.

Undergraduate degree fee .....	\$30
Master's and Specialist's degrees .....	\$35

A transcript fee charge of \$5 is made for each transcript ordered by students.

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

1998-99 motor vehicle rates are as follows:

*Commuter Permits:*

FA or WI (6:00am - 2:00am) .....	44.00
FA or WI (4:00pm - 2:00am) .....	32.00
SP or SU .....	22.00

*Resident permits:*

Apartment housing FA and WI .....	40.00
Apartment SP and SU .....	20.00
Res. Hall FA or WI .....	70.00
Res. Hall SP or SU .....	17.50
Brown-Munson FA or WI .....	40.00
Brown-Munson SP or SU .....	20.00
Graduate Assistant FA or WI .....	20.00
Graduate Assistant SP .....	20.00
Graduate Assistant SU .....	10.00

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.

Further details are available in the Parking and Traffic Regulations brochure available from campus police. Permit cost subject to change.

**Special Fees**

Music fees are charged for private lessons according to the following schedule (1995-96 fee schedule):

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

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

Lessons are arranged through the Music department.

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.

Nursing fees of \$15 per credit hour for clinical laboratory courses are charged in addition to per credit hour fees. These courses are listed below:

NURS 209 The Art and Science of Nursing I Laboratory (3) .....	\$45
NURS 251 The Art and Science of Nursing II Laboratory (3) .....	\$45
NURS 305 Nursing Care of Childbearing Families Laboratory (3) .....	\$45
NURS 307 Nursing Care of Childrearing Families Laboratory (3) .....	\$45
NURS 331 Adult Health Nursing I Laboratory (3) .....	\$45
NURS 341 Community Health Nursing (3) .....	\$45
NURS 351 Psychiatric/Mental Health Nursing Laboratory (3) .....	\$45
NURS 405 Adult Health Nursing II Laboratory (4) .....	\$60
NURS 451 Community Health Nursing Practice (3) .....	\$45

Materials and extra costs are assessed at the close of the program adjustment period in certain courses. These courses are listed near the front of each semester's class schedule bulletin, as well as being identified individually within the bulletin with a bullet (•) before the course number.

**Schedule of University Charges Per Semester 1998-1999**

[University charges are set by action of the Board of Regents, are due in accordance with University payment plans, and may be changed without notice.]

Tuition, 15 hours, Michigan resident: .....	\$1485.00
Tuition, 15 hours, non-resident: .....	3930.00
Registration fee - all students: .....	40.00
General fee (15 hours) - all students: .....	240.00
Music fee - music majors: .....	60.00
Applied music lessons: .....	30.00-60.00
Residence Hall room and board (double room with 20-meal plan): .....	2330.00

**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 14 undergraduate credit hours each semester, living in a University residence hall or off-campus apartment, and attending the full academic year (fall and winter semesters).

Tuition and fees .....	\$3,400
Books and academic supplies .....	\$600
Residence hall room and board .....	\$4,600
Total direct educational costs .....	\$8,600
Estimated additional costs of personal, transportation, and miscellaneous expenses .....	\$1,200

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

Students can anticipate the following total costs: tuition and fees, books, room and board, personal and miscellaneous expenses, and transportation for an eight-month academic year (based on 1998-99 costs):

On campus student .....	\$9,800
Commuter student .....	\$7,300
Off campus student .....	\$9,800

The above budgets are based on Financial Aid average costs for 1998-99.



## Scholarships and Financial Aid

During 1998-99 Eastern Michigan University will pay more than \$64 million dollars in the form of scholarships, grants, part-time employment and loans to over 13,000 students.

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

- New freshmen and transfer students who are admitted by February 15 for the following fall are considered for scholarships through the EMU Admission application.
- Continuing students apply annually, by completing the University Scholarships application. Applications are available at the Office of Financial Aid 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. High school seniors must have either a 3.70 GPA or a 3.50 to 3.69 GPA with a minimum 25 ACT or 1150 SAT. Requires an additional application, available at high schools beginning each September. Ten awards are made per year. Minimum 3.50 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 Scholarship*—Four year award that pays \$2,600 per year. High school seniors must have a 3.50 GPA with a 25 ACT or 1150 SAT. Minimum 3.50 for renewal. Recipients must live in university residence halls their first two years. Must be admitted by February 15 for the next fall semester.

*Recognition of Excellence Scholarship*—Four year award that pays 12 credit hours per year (six per semester) plus mandatory fees. High school seniors must have a 3.30 GPA with a 21 ACT or 1000 SAT. Minimum 3.30 for renewal. Recipients must live in university residence halls their first two years. Must be admitted by February 15 for the next fall semester.

*National Scholars Program*—Four year award that pays 30 credit hours per year (fifteen per semester) of out-of-state tuition differential. High school seniors must have a 3.00 GPA with a 21 ACT or 1000 SAT. Minimum 3.00 for renewal. Recipients must live in university residence halls their first two years. Must be admitted by February 15 for the next fall semester.

*Valedictorian and Salutatorian Scholarship*—One year award of \$2,000. This scholarship will be awarded to new freshmen who graduate as the Valedictorian or Salutatorian from their high school, and who are admitted by February 15 for the next fall semester. Notification deadline is June 30.

*Eagle Leadership Award*—One year award of \$500. High school seniors must have a GPA between 3.0 and 3.49 and must show volunteer involvement in their school or community for consideration. Students must be admitted by February 15 for the next fall semester.

*Community College Scholarship*—One year award of \$1,000. Applications available at Community College Financial Aid Office in February. Students must have completed at least 30 credit hours with a minimum cumulative 3.50 college GPA and must be admitted by May 1 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. Students must be admitted by February 15 for the next fall semester.

*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 Department. Deadline is June 1 for the next fall semester.

*Communication/Theater Arts Service Awards*—Awards are made to students who perform in forensics, theater arts programs or make outstanding contributions to the Communication Theater Arts Department. Deadline is June 1 for the next fall semester.

*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.

### General Eligibility Requirements for Financial Aid

By completing the Free Application for Federal Student Aid (FAFSA), eligible students will be considered for all federal and state aid programs. To receive aid, students must:

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

### Determination of Need-based Financial Aid Awards

The award process for the upcoming academic year begins in April. 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 sent 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 and State Financial Aid

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

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

The 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 1999-2000 semesters is:

On-campus .....	\$10,200
Off-campus .....	\$10,200
Commuter .....	\$ 7,500

## 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 \$3,125 are available to undergraduate students who are enrolled and have demonstrated financial need.

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

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

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

Freshman .....	\$2,625
Sophomore .....	\$3,500
Junior/Senior .....	\$5,500

### Teacher Certification

Students admitted to the teacher certification program will be automatically packaged with a Stafford loan limit of \$5,500 for a two-semester loan period for dependent students.

### 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 52-week Treasury Bill plus 3.10 percent, not to exceed 10 percent. A four 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.

Obtain an application from your chosen lender, and submit the completed PLUS application to the Office of Financial Aid. Loan checks are made payable to the parent and Eastern Michigan University and are sent to EMU in two disbursements.

## 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 processed deadline of February 21 for freshmen, and March 21 for continuing students. 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 \$1000 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.

### Payment of Financial Aid

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

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

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

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

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

### 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 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 and is not later than the student's last date of enrollment for the fiscal year. Failure to submit required documents by the due date may result in the cancellation of financial aid offers.

## Financial Aid Transcripts

Students who transfer to EMU as a new transfer student with a first semester enrollment of Winter, Spring or Summer must arrange for a Financial Aid Transcript to be sent to EMU from all previous colleges or universities attended.

### Satisfactory Academic Progress

Federal regulations require that students must progress satisfactorily toward graduation. Satisfactory Academic Progress (SAP) 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 satisfactory academic progress 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 2.00 or better;
- Graduate—overall GPA of 3.00 or better;
- Completion of 75 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 aid paid toward room and board, and personal costs.

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 must be repaid, reduced or cancelled.

Students may also 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 2.0 "C" undergraduate, 3.0 "B" graduate),
- (4) have no past due obligations, and
- (5) have repaid previous loans satisfactorily.

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

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

*Adult Tuition Loans*—Tuition-only loans for up to \$500. Applicants must be 21 years of age or older; have an annual income of \$15,000 or more; and meet the same 5 requirements for the USTL Program.

### Tax Information

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

## Academic Procedures

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

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

Academic course load 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 15 to 18 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 five to 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. Pass/fail credit hours are included in the total course load.

Qualified continuing students taking over 18 credit hours should consult carefully with an academic adviser before taking an overload. The Touch-tone system will prevent registration for more than 24 credit hours (12 in spring or summer). Request assistance at the Records and Registration service counter to add classes in excess of 24 credits.

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, mere physical attendance should not be the only criterion for evaluation of the student's performance.

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

### 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 is awarded for class audit but you must first be registered for the class. Tuition and fees for auditing are the same as for 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, Bowen. These

students do not register for the class and there is no transcript of their attendance.

Credits are determined by the units of work completed. A credit hour is the credit granted in a course meeting once a week for one semester. Credits earned on the term or quarter-hours basis at other institutions are converted to EMU credit hours by multiplying by two-thirds.

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

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

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

Guest .....	GS
Self Improvement .....	IM
Non-Matriculated .....	NM
Second Bachelors .....	SB

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

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

*\*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 to 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 76 hours or more of undergraduate credit, have a cumulative grade point average of 2.50 or better, and receive approval from 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 600 and 700s are exclusively for graduate students.

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

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

If a final examination is given, students shall take the examination with their own class and at the hour indicated on the examination schedule. Failure to take the examination at the scheduled time will result in a grade of "E" in the course, except when the requisite conditions for granting an "I" are present.

If the student finds that he/she has three examinations scheduled on one day, he/she may request the instructor of the class having the first

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

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

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

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

## Grades

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

Grade	Significance	Grade points per credit hour
A	Exceptionally high order	4.0
A-		3.7
B+		3.3
B	Distinctly above the average	3.0
B-		2.7
C+		2.3
C	Average	2.0
C-		1.7
D+		1.3
D	Below Average	1.0
D-		0.7
E	Unsatisfactory (denoting failure)	0
I	Incomplete	0
CR	Passing grade in credit/no credit courses	0
NC	Failing grade in credit/no credit courses	0
S	Passing grade in pass/fail elections	0
SC	Credit for certification in student teaching courses	0
PN	Passing grade in student teaching but not at level sufficient for certification	0
U	Failing grade in pass/fail	0
UN	Failing grade in student teaching elections	0
IP	In Progress	0
W	Withdrawal	0
2YR	E Forgiven—out of school two years	0

Credits earned by student teaching, credit/no credit classes, or pass/fail options are not accorded grade points.

The use of "+" and "-" grades was introduced in the fall semester 1979.

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 credit/no credit option can be utilized in courses for which the standard system of letter grades does not seem appropriate, however, the minimum equivalent grade for which credit is given is a "C." Depart-



ments wishing to offer a course on a credit/no credit option must secure approval of their dean and the vice president for academic affairs.

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 or general education requirements.
3. A maximum of six such courses may be applied toward graduation.
4. Students shall indicate their intention to take a course by filing an application with the Academic Advising Center, 301 Pierce, prior to the end of the program adjustment period. Approval or denial is available in two working days.
5. Students who elect a course on pass/fail may cancel the option and accept a letter grade up to the last day of class before the official University scheduled final examinations.
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 there. It has been ascertained that most graduate schools will accept students who have elected to take some courses on a pass/fail basis, but that if courses taken on this basis are sufficient in number on the transcript, the Graduate School Examinations may be utilized to determine the student's acceptability. Graduate schools, in general, do tend to favor those applicants who have good letter grades on their transcripts.

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 non-attendance of class by the student. It means that the student has informed the instructor of the reason for the requested incomplete, and the instructor has agreed 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.

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

Grade changes attempted by students must be initiated no later than the end of the eighth week of the next regular semester (fall or winter) following the semester or session in which the grade was given. A grade grievance must be initiated within five working days after the start of the next regular

semester (see Grade Grievance Procedure in Student Reference Section). For instructor-requested changes, this means that the appropriate form has been submitted to the department head. For student appeals, it means that the instructor has refused to make a change and the issue has been formally turned over to the departmental grievance board.

An extension beyond this limitation may be permitted only by the dean of the college in which the course was taken. Such extensions will be granted only on verifiable evidence of emergency circumstances, such as serious illness or military obligation, which prevented the petitioner from acting during the prescribed period.

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

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

Grade reports are mailed by the University to the permanent address of the student normally within one week of the end of each semester/session. Undergraduate students' academic records are kept on permanent file in the Office of Records and Registration, 303 Pierce Hall. Unless there are past due financial obligations, students may get an official transcript of their complete records by requesting them in writing from the Cashiers Office and upon payment of the transcript fee specified.

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 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 grade point average. Non-index courses are not included in the computation of the grade point average.

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.

Academic distinction is awarded at graduation to students whose cumulative grade point average merits special recognition. A 3.90-4.00 grade point average is accorded summa cum laude; a 3.70-3.89, magna cum laude; and 3.50-3.69, cum laude on the diploma and permanent transcript record.

## Credit/No Credit

A credit/no credit grading option is used by departments in courses for which the standard letter grades are not appropriate. These courses are designated as "CR/NC" in the class schedule book. All students taking such courses will receive either "CR" or "NC" in place of a letter grade. Neither "CR" nor "NC" grades will have any effect on the student's grade point average. Courses for which the "CR" is received will count toward graduation requirements.



## Academic Retention and Dismissal

A student's academic status will change from "GOOD" to either "PROB" or "DISM" when the cumulative grade point average at EMU is less than 2.0 ("C" Average) at the completion of any term of enrollment. The resulting academic status is determined by the relationship between the cumulative grade point credits and cumulative grade point average. The status will be changed to "PROB" for academic probation or "DISM" for dismissal.

Academic probation means that the student's grade point average has fallen below 2.0, but the student is eligible to continue course work. A student not subject to dismissal will remain on probation until he/she raises the cumulative grade point average to 2.0 or higher. To avoid the risk of academic dismissal, a student must earn at least a term grade point average of 2.0 or higher while on probation.

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; in Spring and Summer, 8 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.

Students whose grade point average and grade point credits place them in the dismissal range will be academically dismissed, unless the term grade point average is 2.0 or higher. Even students who have not been on probation previously may risk dismissal; there is no automatic grace period, even for those new to EMU. Any dismissal action is subject to an appeal through the Academic Advising Center. Instructions and deadlines for such appeals are included with a written notice of dismissal, which is sent to each affected student after the conclusion of the term of enrollment. Students who appeal may be reinstated, which means that the most recent dismissal action is rescinded and the student is eligible to continue in course work; if the student's grade point average is still less than 2.0 at the time of reinstatement, probation policies will apply. The student must earn a term grade point average of 2.0 to avoid the risk of dismissal again.

Policies and actions relating to probation and dismissal are defined by the Academic Standards Committee and administered by the Assistant Director for Academic Actions in the Academic Advising Center.

A dismissed student will be considered for readmission to EMU after two successive enrollment periods (one of which must be Fall or Winter) have elapsed. Procedures for readmission involve submitting a written statement explaining readiness to return, accompanied by at least two letters of support and other relevant documentation. Any course work taken elsewhere subsequent to dismissal must be 2.0 or better, and EMU residency policies for transfer credits will apply. Specific details and procedures are provided by the Academic Advising Center and may be obtained by contacting that office at 734.487.2171. Materials concerning readmission must be submitted to the Assistant Director for Academic Actions, in writing. Deadlines for Fall and Winter are July 1 and November 15, respectively. Students who have been dismissed more than once previously (reinstatements excluded) normally will not be considered for readmission.

## Drops/Withdrawals

### Drops/withdrawals from individual classes

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

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

*\*Ninth day through tenth week:* All student-initiated withdrawals are accepted automatically and recorded as a "W." A withdrawal may be processed through the touch-tone registration system or by submitting a withdrawal form to the Office of Records and Registration, 303 Pierce Hall.

*\*After tenth week—until beginning of final exam period:* The student must initiate the withdrawal request at the Academic Advising Center. The decision made on the request will be communicated in writing both to the student and the instructor in question. Students should not stop attending class until they have received official notification that their withdrawal has been approved. If a student stops attending class without officially withdrawing from the class and does not take the final examination, University policy requires that the instructor assign a grade of "E" for the course.

A "W" may be granted to students under either of the following conditions:

1. The student's work in the course at the time of the withdrawal request is "A" through "C-."
2. Unexpected, emergency circumstances have arisen after the tenth week of the semester and prevent the student from completing the course work. These circumstances must be specific and verifiable.

The decision to award the "W" will be made by the Academic Advising Center associate director, or designee, based upon evidence submitted and in conference with the student. If the application is denied and the student fails to complete the course work successfully, a grade of "E" will be recorded by the instructor.

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.

*\*These procedures and University withdrawal procedures also apply to spring and summer sessions. 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.

### For First Time Attendees of EMU

A credit adjustment of 100 percent of tuition and fees for the fall and winter semesters, less an administrative 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, less an administrative fee, 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 withdrawals after the eighth day of fall and winter semesters, or the fourth day of spring and summer semesters, will be made according to the following schedule:

**Withdrawal by the Following Day of the Semester**

Credit Adjustment	Fall/Winter	Spring/Summer
80%	15th	8th
70%	23rd	12th
60%	30th	15th
50%	38th	19th
40%	45th	23rd
0%	46th	24th

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.

**For Non-First-Time Attendees of EMU**

A credit adjustment of 100 percent of tuition and fees for the fall and winter semesters, less an administrative 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, less an administrative fee, 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 withdrawals after the eighth day of fall and winter semesters, or the fourth day of spring and summer semesters, will be made according to the following schedule:

**Withdrawal by the Following Day of the Semester**

Credit Adjustment	Fall/Winter	Spring/Summer
50%	19th	10th
25%	38th	19th
0%	39th	20th

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 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 office of the vice president for academic affairs.

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

**Student Conduct/Grievances**

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

**Course Prefixes**

A department prefix or code is used to identify courses offered by Eastern Michigan University:

	<b>PREFIX</b>
<b>Academic Affairs Division</b> .....	AADV
<b>COLLEGE OF ARTS AND SCIENCES</b>	
<b>African American Studies</b> .....	AAS
<b>Art</b>	
Art Education .....	FA
Art History .....	FA
Fine Art .....	FA
Studio Art .....	FA
<b>Biology</b> .....	BIOL
Botany .....	BOTN
Elementary Science .....	ESCI
Microbiology .....	MICR
Zoology .....	ZOOZ
<b>Chemistry</b> .....	CHEM
<b>Computer Science</b> .....	COSC
<b>Communication and Theatre Arts</b>	
Activity .....	CTAA
Communication .....	CTAC
Interpretation/Performance Studies .....	CTAO
Telecommunications and Film .....	CTAT
Theatre and Education .....	CTAR
Speech .....	CTAS
<b>Economics</b> .....	ECON
<b>English Language and Literature</b>	
English .....	ENGL
Journalism .....	JRNL
Linguistics .....	LING
Literature .....	LITR
<b>Foreign Language and Bilingual Studies</b>	
Bilingual Education .....	BILN
Classics Courses .....	CLAS
English as a Second Language .....	ESLN
Foreign Language and Bicultural Studies .....	FLAN
French .....	FRNH
German .....	GERN
Greek .....	GREK
Japanese .....	JPNE
Language .....	LNGE
Latin .....	LATN
Spanish .....	SPNH
Teaching English as a Second Language (TESOL) .....	TSLN
<b>Geography and Geology</b>	
Earth Science .....	GESC
Geography .....	GEOG
Geology .....	GEOL
Historic Preservation .....	GHPR
Urban and Regional Planning .....	GPLN
<b>History and Philosophy</b>	
History .....	HIST
Philosophy .....	PHIL
<b>Interdisciplinary Arts and Sciences</b> .....	CASI
<b>Mathematics</b> .....	MATH
<b>Music</b> .....	MUSC
Applied Music has a prefix for each instrument. Refer to the class schedule book for the codes.	
<b>Physics and Astronomy</b>	
Astronomy .....	ASTR
Physics .....	PHY
<b>Political Science</b> .....	PLSC

<b>Psychology</b> .....	PSY	<b>Business and Technology Education</b>	
<b>Sociology, Anthropology, and Criminology</b>		Business Education .....	BEDU
Anthropology .....	ANTH	Legal Assisting .....	LEGL
Criminology .....	CRM	Technology Education .....	TEDU
Sociology .....	SOCL	<b>Industrial Technology</b>	
<b>Women's Studies</b> .....	WMST	Computer Aided Design/Manufacturing .....	CADM
<b>COLLEGE OF BUSINESS</b> .....	COB	Construction Management .....	CNST
<b>Accounting</b> .....	ACC	Electronics .....	ELEC
Decision Science .....	DS	Facility Management .....	FMGT
<b>Finance and Computer Information Systems</b>		Manufacturing .....	MFG
Finance .....	FIN	Quality .....	QUAL
Insurance .....	INS	<b>Interdisciplinary Technology</b> .....	INDT
Information Systems .....	IS	<b>Military Science</b> .....	MILT
Production/Operations Management .....	POM		
<b>Management</b> .....	MGMT		
<b>Marketing</b> .....	MKTG		
Law .....	LAW		
<b>COLLEGE OF EDUCATION</b>			
<b>Health, Physical Education, Recreation and Dance</b>			
Athletics .....	ATHL		
Dance .....	DANC		
Health Education .....	HLED		
Physical Education .....	PHED		
Physical Education Activity—General .....	PEGN		
Physical Education Activity—Majors .....	PEMJ		
Recreation .....	RECR		
Sports Medicine .....	SPMD		
<b>Leadership and Counseling</b>			
Educational Leadership .....	EDLD		
Counseling and Student Affairs Practice .....	CSAP		
<b>Special Education</b>			
Emotionally Impaired .....	SPEI		
General .....	SPGN		
Deaf and Hearing Impaired .....	SPHI		
Learning Impaired .....	SPLI		
Mentally Impaired .....	SPMI		
Physically Impaired .....	SPPI		
Speech and Language Impaired .....	SPSI		
Visually Impaired .....	SPVI		
<b>Student Teaching</b> .....	EDUC		
<b>Teacher Education</b>			
Curriculum and Instruction .....	CURR		
Educational Media .....	EDMD		
Educational Media and Technology .....	EDMT		
Educational Psychology .....	EDPS		
Educational Technology .....	EDTC		
Field Experience .....	FETE		
Reading .....	RDNG		
Social Foundations of Education .....	SOFD		
<b>COLLEGE OF HEALTH AND HUMAN SERVICES</b>			
<b>Associated Health Professions</b> .....	AHPR		
Clinical Laboratory Sciences .....	CLSC		
Health Administration .....	HLAD		
Occupational Therapy .....	OCTH		
<b>Human, Environmental and Consumer Resources</b> .....	HECR		
Apparel, Textiles and Merchandising .....	ATM		
Dietetics .....	DTC		
Hotel and Restaurant Management .....	HRM		
Interior Design .....	IDE		
<b>Interdisciplinary Health and Human Services</b> .....	IHHS		
<b>Nursing</b> .....	NURS		
<b>Social Work</b> .....	SWRK		
Gerontology .....	GERT		
<b>COLLEGE OF TECHNOLOGY</b>			

## Graduation Requirements

To graduate from Eastern Michigan University, students must earn a bachelor of science degree, a bachelor of arts degree, or one of the baccalaureate degrees pertinent to their field of study. To accomplish this, students must fulfill general education requirements, a major of 30 to 36 hours and a minor of 20 to 24 hours or a self-contained program of 50 to 60 hours, 2 hours of physical education and health, and electives to equal the minimum total of 124.

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

### Degrees

Basic undergraduate degrees conferred by the Board of Regents on recommendation of the president and faculty are the Bachelor of Science (BS) and the Bachelor of Arts (BA) degrees, described fully in the introduction to the College of Arts and Sciences.

Bachelor's degrees are also awarded in fine arts (BFA) and art education (BAE)—see Department of Art, College of Arts and Sciences; business administration (BBA)—see College of Business; bachelor of business administration and bachelor of arts in language and world business (BBA/BA)—see College of Business or Department of Foreign Languages; College of Arts and Sciences; business education (BBE)—see Department of Business and Technology Education, College of Technology; music education (BME), music-performance (BMU), and music therapy (BMT)—see Department of Music, College of Arts and Sciences; nursing (BSN)—see Department of Nursing, College of Health and Human Services.

Many students also select pre-professional 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).

Graduate degrees offered by this University are: Master of Arts, Master of Science, Master of Fine Arts, Master of Business Administration, Master of Science in accounting, Master of Public Administration, Master of Business Education, Master of Science in computer-based information systems, Master of Individualized Studies, Master of Social Work, Master of Nursing, Master of Science in organizational behavior and development, and Master of Liberal Studies. In addition, there is a Specialist in Arts degree and a doctorate in educational leadership. All are listed in the graduate catalog.

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

### General Education Program

#### History

In February 1985, the provost commissioned a Basic Studies Review Committee and charged the members "with conducting a comprehensive reexamination of our present basic studies requirements and with determining what changes should be made to provide the most effective liberal/general education for today's students." The Basic Studies Review Committee met through April 1986 and recommended a series of revisions in the structure of the existing program. The recommended revisions were subjected to a thorough process of review by departmen-

tal, college, and University bodies and were finally approved by the Board of Regents on September 23, 1987.

The revised structure included the establishment of a standing Basic Studies Committee, whose task was to make recommendations about implementation of the new basic studies program. The Basic Studies Committee was commissioned in January 1988 and has met regularly since that time. The Basic Studies Committee considered extensive input from the University community. Upon recommendation of the Basic Studies Committee, the provost approved the following program.

#### Implementation Schedule

Effective fall semester 1990, the new basic studies program applies to all entering first time freshmen students at EMU who begin their college work in fall 1990 or thereafter. It also applies to transfer students who begin their college work at another institution in fall 1990 or thereafter. Transfer students must consult the Academic Advising Center to determine the degree to which their transfer credits may be applied toward the EMU basic studies requirements.

After December 2000, students will no longer be able to graduate under pre-fall 1990 basic studies requirements. Students who have been making consistent progress toward their degree may request an exemption upon the recommendation of their adviser and approval of the director of records and registration.

#### Rationale

The general education program is designed to provide you with a core of knowledge about people, things, and processes. The program also seeks to teach you how to evaluate the work of others, to add to your store of ideas and ideals, and to communicate your discoveries and insights. The general education courses are intended as more than introductions to fields of study; they should also develop your capacity for independent thought. The general education program attempts to ensure that you will not be content with the world as it is but will seek to improve and perfect it.

#### Requirements: 16 courses

All students are required to complete courses in four areas:

- |                                       |           |
|---------------------------------------|-----------|
| I. Symbolics and Communication: ..... | 5 courses |
| II. Science and Technology: .....     | 3 courses |
| III. Social Science: .....            | 4 courses |
| IV. Arts and Humanities: .....        | 4 courses |

Special Note 1: At least one of the 16 courses must be an approved course in cross cultural or international studies. Such courses appear in the following course lists preceded by an asterisk (\*).

Special Note 2: A set of interdisciplinary courses may be elected by honors students and, as space is available, by students with a cumulative grade point average of at least 3.0 to satisfy the requirements in fine arts, history, literature, music, philosophy, and theatre arts. For further information, consult the Honors Courses in General Education on page 30.

Special Note 3: A number of majors and minors specify precisely which courses must be taken to satisfy the following general education requirements. Students in the elementary education and nursing programs have a special grouping of courses to satisfy some of these requirements. It is extremely important that you confer with the Academic Advising Center and/or your departmental adviser prior to making your general education choices.

#### AREA I: SYMBOLICS AND COMMUNICATION

##### Requirements: 5 courses

1. A course in written composition.
2. A course in speech communication.
3. A course in one of the following areas:
  - (a.) an upper-level course in written composition.



- (b.) an upper-level course in speech communication.
  - (c.) a course in foreign language composition.
4. A course in mathematical reasoning.
  5. A course in computer literacy.

#### A: Rationale

Human beings need to know how to use symbols to communicate effectively. Writing requires a command of verbal symbols; speech uses both verbal and nonverbal symbols. Using written and spoken symbols, we construct, interpret, and influence human experiences and behavior. Mathematical symbols are used to communicate the extent, dimension, and structure of things and allow us to reason efficiently. The traditional competencies in speech, writing, and mathematics will be enhanced by your use of computer technology.

#### B: Meeting the Requirements in Area I (Symbolics and Communication)

Courses marked with an asterisk (\*) also satisfy the cross-cultural/international studies requirement.

##### 1. A course in written composition

*Note:* For those students who do not submit test scores, placement will be determined by the Academic Advising Center.

###### ENGL 120 Basic English Composition

You must enroll in this course in your first semester if you score below 19 on the English section of the ACT or below 430 on the Verbal section of the SAT.

When you have completed ENGL 120, you must then complete ENGL 121.

###### ENGL 121 English Composition

You must complete ENGL 121 in order to satisfy this requirement. You are eligible for a waiver from this requirement if you score 29 or above on the English section of the ACT or 640 or above on the Verbal section of the SAT.

International students may substitute ESLN 412 with permission of the Foreign Language and Bilingual Studies Department.

##### 2. A course in speech communication

Complete one of the following courses:

###### CTAS 121 Fundamentals of Speech (2)

###### CTAS 124 Fundamentals of Speech (3)

*Note:* Students with strong previous preparation in speech may seek approval for a waiver of this requirement from the Communication and Theatre Arts Department.

##### 3. Complete a course from one of the following options (3a, 3b, or 3c):

###### 3a. An upper level course in written composition

Complete one of the following courses:

- ANTH 200 Writing for Anthropology (3)
- ENGL 225 Intermediate English Composition (3)
- ENGL 227 Writing about Literature (3)
- ENGL 323 Writing in the Professional World (3)
- ENGL 324 Principles of Technical Communication (3)
- ENGL 326 Research Writing (3)

###### 3b. An upper level course in speech communication

Complete one of the following courses:

- CTAC 224 Public Speaking (3)
- CTAC 225 Listening Behavior (3)
- CTAC 226 Nonverbal Communication (3)
- CTAC 227 Interpersonal Communication (3)
- \*CTAC 374 Intercultural Communication (3)
- \*CTAC 375 Interracial/Interethnic Communication (3)

##### 3c. A course in foreign language composition

Complete one of the following courses (initial placement in language courses depends upon previous student and/or placement examinations).

- FRNH 121/FRNH 122 Beginning French (5)
- FRNH 233/FRNH 234 Intermediate French Conversation, Composition, and Grammar (3)
- GERN 121/GERN 122 Beginning German (5)
- GERN 233/GERN 234 Intermediate German Conversation, Composition, and Grammar (3)
- GREK 121/GREK 122 Beginning Ancient Greek I/II (5)
- JPNE 121/JPNE 122 Beginning Japanese (5)
- JPNE 211/JPNE 212 Intermediate Japanese (3)
- LATN 121/LATN 122 Beginning Latin I/II (5)
- SPNH 121/SPNH 122 Beginning Spanish (5)
- SPNH 201/SPNH 202 Intermediate Spanish (5)

##### 4. A course in mathematical reasoning

Complete one of the following courses:

- MATH 109 Mathematics for Elementary Teachers II (elementary education students only) (3)
- MATH 110 Mathematical Reasoning (3)
- MATH 118 Mathematical Analysis for Social Sciences I (3)
- MATH 119 Mathematical Analysis for Social Sciences II (3)
- MATH 120 Calculus I (4)
- MATH 121 Calculus II (4)
- MATH 122 Elementary Linear Algebra (3)
- MATH 170 Elementary Statistics I (3)
- MATH 341 College Geometry (3)
- SOCL 250 Social Statistics I (3)

*Note:* You are eligible for a waiver of this requirement if you score 23 or above on the Math section of the ACT or 580 or above on the Math section of the SAT. A waiver form must be obtained from the Academic Advising Center. Curriculum or major requirements must still be satisfied.

##### 5. A course in computer literacy

Complete one of the following courses:

- BEDU 201 Microcomputers for Business Applications (3)
- CADM 105 Computer Applications for Industry (3)
- COSC 136 Computers for the Non-specialist (3)
- COSC 137 Introduction to FORTRAN Programming (3)
- COSC 138 Computer Science I (3)
- COSC 237 Computer Programming and Numeric Methods (3)
- IHHS 226 Computers for Health and Human Services (3)
- INDT 201 Microcomputer Applications in Technology (3)
- IS 215 End-User Computing (3)

#### AREA II: SCIENCE AND TECHNOLOGY

**Requirements: 3 courses (including one course with a lab component)**

1. A course in physical science.
  - a. You must complete a course in chemistry or physics unless you have submitted appropriate evidence to the Academic



Advising Center that you completed a one unit course in high school with a grade of "C" or above.

- b. If you have submitted proof of having completed a one unit high school course in chemistry or physics, you may satisfy this requirement by choosing among chemistry, earth science/geology, or physics/astronomy.
2. A course in life science (biology or psychology).
3. A course in science or technology, chosen from a department other than the ones in which you have completed your physical and life science requirements.

*NOTE:* Earth science and geology are in the same department. The same is true of physics and astronomy.

#### A: Rationale

The sciences study the physical character of the universe and the nature of its living organisms, including the human species. Learning to use the scientific method will expand your knowledge and understanding of the universe.

Observation of the natural world leads to theories, from which hypotheses are generated. These hypotheses are then checked against the empirical data collected by systematic observation and experimentation. Science enables you to understand the world better and, where appropriate, to modify your thinking about nature.

The study of technology enables you to understand how scientific knowledge is employed to solve practical problems. Knowledge of scientific and technological methods will help you to be an active problem-solver rather than a mere spectator.

#### B: Meeting the Requirements in Area II (Science and Technology)

**At least one of the three courses in Area II must have a laboratory component**

##### 1. A course in physical science

###### 1a. Physical science courses open to all students who meet course requirements

Complete one of the following courses:

- CHEM 115 Chemistry and Society (no laboratory) (3)
- CHEM 115-CHEM 116 Chemistry and Society with lab (4)
- #CHEM 117-CHEM 118 Fundamentals of Chemistry with lab (4)
- CHEM 120 Fundamentals of Organic and Biochemistry (4)
- CHEM 121-CHEM 122 General Chemistry I with lab (4)
- PHY 100 Science for Elementary Teachers (elementary education students only) (3)
- PHY 101 Physical Science in the Arts (4)
- PHY 110 Physical Science (4)
- PHY 221 Mechanics, Sound, and Heat (4)
- PHY 223 Mechanics, Sound, and Heat (5)

###### 1b. Additional options open to students who have submitted appropriate evidence of having completed a one unit high school chemistry or physics course with a grade of "C" or above

Complete one of the courses listed in 1a, or one of the following courses:

- ASTR 203 Exploration of the Universe (no laboratory) (3)
- ASTR 203 Exploration of the Universe-ASTR 204 Astronomical Investigations (4)
- ASTR 204 Astronomical Investigations-ASTR 205 Principles of Astronomy (5)
- ASTR 205 Principles of Astronomy (no laboratory) (4)
- GESC 108 Earth Science (4)
- GEOL 120 The Fossil Record (no laboratory) (3)
- GEOL 160 Physical Geology (4)

##### 2. A course in life science

Complete one of the following courses.

- BIOL 105 Introductory Biology for Non-majors (4)
- BIOL 110 Introductory Biology (5)
- BOTN 221 General Botany (4)
- ESCI 303 Science for the Elementary Teacher (elementary education students only) (3)
- PSY 101 General Psychology (no laboratory) (3)
- PSY 102 General Psychology (4)
- ZOOL 222 General Zoology (4)

##### 3. A course in science or technology (3a or 3b):

**3a. You may choose any one of the courses listed under physical or life science, so long as you have chosen your three courses in this area from three different departments.**

**3b. You also may choose your third course from the following list:**

- CHEM 101 Science for Elementary Teachers (elementary education students only) (3)
- INDT 150 Understanding Technology (no laboratory) (3)
- MFG 240 Science, Technology, and People (no-laboratory) (3)

#### AREA III SOCIAL SCIENCE

**Requirements: 4 courses**

1. A course in U.S. government
2. A course in history
3. A course in anthropology, economics, geography, or sociology, whose content includes the structure and methodology of the discipline.
4. One of the following:
  - a. A second course in a two-course history sequence.
  - b. A second course in a two-course sequence in anthropology, economics, geography, or sociology, whose content includes the structure and methodology of the discipline.
  - c. An approved course in cross-cultural or international studies.

#### A: Rationale

As an informed person you should understand the structure and dynamics of groups of human beings and be able to study group behavior.

Analysis of American government and comparisons with other governments will help you understand how to influence your government in positive ways.

Your study of the development of human institutions and practices through time will increase your understanding of how earlier societies met challenges and adjusted to changing circumstances. You will learn how those successes and failures led to the problems and opportunities which face us now.

Learning how a given social science gathers and interprets its data will help you understand that good public decisions depend on adequate information about issues.

A knowledge of the history, social settings, values, and perceptions of other sub-cultures, cultures, and nations will broaden your appreciation of different ways of organizing social life and looking at the world.

#### B: Meeting the Requirements in Area III (Social Science)

Courses marked with an asterisk (\*) satisfy the cross-cultural/international studies requirement.

##### 1. A course in U.S. government

Complete one of the following courses:

- PLSC 112 American Government (3)
- PLSC 113 American Government Honors (3)

**2. A course in history**

Complete one of the following courses:

- HIST 101 Western Civilization to 1648 (3)
- HIST 102 Western Civilization, 1648 to World War I (3)
- HIST 103 20th-Century Civilization (3)
- HIST 104 Quest for Power: Famous Figures in History (honors only) (3)
- HIST 106 Asian and African Civilizations (3)
- HIST 109 World History to 1500 (3)
- HIST 110 World History since 1500 (3)
- HIST 123 The United States to 1877 (3)
- HIST 124 The United States, 1877 to the Present (3)
- HIST 151 Reason and Revolution (honors only) (3)

*Note:* Some students may be eligible to fulfill the requirements in history by pursuing options described in the Honors Courses in General Education.

**3. A course in anthropology, economics, geography, or sociology**

Complete one of the following courses:

- ANTH 135 Introduction to Cultural Anthropology (3)
- ECON 100 Introduction to Economic Problems and Policies (3)
- ECON 201 Principles of Economics I (3)
- GEOG 107 Introduction to Geography (3)
- GEOG 110 World Regions (3)
- SOCL 105 Introductory Sociology (3)

**4. Complete a course from one of the following options (4a, 4b, or 4c):****4a. A second course in a two-course history sequence**

Complete one of the following courses:

- HIST 102 Western Civilization, 1648 to World War I (follows HIST 101) (3)
- HIST 103 20th-Century Civilization (follows HIST 102) (3)
- HIST 110 World History since 1500 (follows HIST 109) (3)
- HIST 124 The United States, 1877 to the Present (follows HIST 123) (3)

**4b. A second course in a two-course sequence in anthropology, economics, geography, or sociology**

Complete one of the following courses:

- ANTH 140 Introduction to Prehistoric Anthropology (follows ANTH 135) (3)
- ECON 202 Principles of Economics II (follows ECON 201) (3)
- GEOG 111 Regions and Resources (follows GEOG 110) (3)
- SOCL 202 Social Problems (follows SOCL 105) (3)

**4c. A course in cross-cultural or international studies**

Complete one of the following courses:

- \*AAS 101 Introduction to African American Studies (3)
- \*ANTH 233 Peoples and Cultures of Mexico (3)
- \*ANTH 236 Peoples and Cultures of Africa (3)
- \*ANTH 237 Indians of North America (3)
- \*ANTH 245 Culture of Japan (3)
- \*ANTH 355 Anthropology of Women (3)
- \*CASI 206 Culture and the Holocaust (3)
- \*ECON 321 Minority Workers in the Labor Market (3)
- \*ECON 328/WMST 328 Economics of Women (3)
- \*HIST 305 Indians of the United States (3)
- \*HIST 315 History of Black Americans (3)
- \*HIST 336/WMST 336 History of Women in the United States and Great Britain, 1800 to the Present (3)
- \*HIST 341 The Middle East, 1798 to the Present (3)
- \*HIST 342 North Africa, 1798 to the Present (3)
- \*HIST 348 20th-Century Africa (3)
- \*HIST 356 Latin America: National Period (3)

\*HIST 375 Modern India (3)

\*SOCL 205 Minority Women in the United States (3)

\*ANTH 214/SOCL 214 Racial and Cultural Minorities (3)

\*SOCL 344/WMST 344 Sociology of Gender (3)

\*WMST 200 Introduction to Women's Studies (3)

**AREA IV: ARTS AND HUMANITIES**

**Requirements: 4 courses**

1. One of the following:
  - a. a course in literature
  - b. an intermediate or advanced foreign language literature course
2. One of the following:
  - a. a second course in literature
  - b. an intermediate or advanced foreign language literature course
  - c. a course in oral interpretation
  - d. a course in cross-cultural or international studies
3. A course in philosophy or religion
4. A course in art, dance, music, or theatre arts

**A: Rationale**

The arts and humanities help you to probe the meaning of human experience and imagine how that experience could be altered. Such probing and imagining lead to new insights and visions.

Exposure to the arts and humanities increases the repertoire of ideas, images, and sounds that you can enjoy. Training in criticism will help you analyze your own reactions to various art forms and develop educated tastes and values. The arts and humanities include literature, aural and visual media, philosophy, religion, and the plastic and performing arts.

**B: Meeting the Requirements in Area IV (Arts and Humanities)**

Courses marked with an asterisk (\*) satisfy the cross-cultural/international literature requirement.

*Note:* Some students may be eligible to fulfill the requirements in fine arts, literature, music, philosophy and theatre arts by pursuing options described in the Honors Courses in General Education on page 30.

**1. Complete a course from one of the following options (1a or 1b):****1a. A course in literature**

Complete one of the following courses:

- LITR 100 The Reading of Literature (3)
- LITR 101 The Reading of Literature: Fiction (3)
- LITR 102 The Reading of Literature: Poetry (3)
- LITR 103 The Reading of Literature: Drama (3)
- LITR 106/CLAS 106 Rome and America (honors only—concurrent courses satisfy two literature requirements) (6)
- LITR 150 Humanity and Technology (honors only) (3)
- LITR 181 The Legacy of Greece (honors only) (3)
- CLAS 104 Quest for Power: Famous Figures in History (honors only) (3)
- CLAS 181 The Legacy of Greece (honors only) (3)

**1b. A course in intermediate or advanced foreign language literature**

Complete one of the following courses:

- FRNH 221/FRNH 222 Intermediate French (Reading) (3)
- FRNH 341/FRNH 342 Survey of French Literature (3)
- GERN 221/GERN 222 Intermediate German Reading (3)
- GERN 341/GERN 342 Survey of German Literature (3)
- SPNH 221/SPNH 222 Intermediate Spanish Reading (3)
- SPNH 341/SPNH 342 Survey of Spanish Literature (3)
- SPNH 351/SPNH 352 Survey of Spanish American Literature (3)

**2. Complete a course from one of the following options (2a, 2b, 2c, or 2d):**

**2a. A second course in literature**

Complete one of the following courses not previously chosen under 1a:

- LITR 100 The Reading of Literature (3)
- LITR 101 The Reading of Literature: Fiction (3)
- LITR 102 The Reading of Literature: Poetry (3)
- LITR 103 The Reading of Literature: Drama (3)
- LITR 106/CLAS 106 Rome and America (honors only—concurrent courses satisfy two literature requirements) (6)
- LITR 150 Humanity and Technology (honors only) (3)
- LITR 181 The Legacy of Greece (honors only) (3)
- CLAS 104 Quest for Power: Famous Figures in History (honors only) (3)
- CLAS 181 The Legacy of Greece (honors only) (3)

**2b. A course in intermediate or advanced foreign language literature**

Take any course not already completed from the list under 1b above.

**2c. A course in oral interpretation**

Complete CTAO 210 Interpretative Reading (3)

**2d. A course in cross-cultural or international studies**

Complete one of the following courses:

- \*FLAN 215 The Cultures of Mexican-Americans and Cubans in the United States (3)
- \*LITR 204 Native American Literature (3)
- \*LITR 260 African American Literature (3)

**3. Complete a course from one of the following options (3a or 3b):**

**3a. A course in philosophy**

Complete one of the following courses:

- PHIL 100 Introduction to Philosophy (3)
- PHIL 110 Philosophies of Life (3)
- PHIL 120 Introduction to Critical Reasoning (3)
- PHIL 130 Introduction to Logic (3)
- PHIL 212 Philosophy of Art (3)
- PHIL 215 Philosophy of Religion (3)
- PHIL 220 Ethics (3)
- PHIL 221 Business Ethics (3)
- PHIL 225 Political Philosophy (3)
- \*PHIL 226/WMST 226 Philosophy of Women (3)

**3b. A course in the study of religion**

Complete one of the following courses:

- HIST 100 The Comparative Study of Religion (3)
- PSY 225 Psychology of Religion (3)

**4. Complete a course from one of the following options (4a, 4b, 4c, or 4d):**

**4a. A course in art**

Complete one of the following courses:

- FA 100 Art Appreciation (3)
- FA 101 Introduction to Art (3)
- FA 107 Art History Survey I (3)
- FA 108 Art History Survey II (3)
- FA 122 Two-Dimensional Design (3)
- FA 123 Drawing I (3)
- FA 165 Graphic Design for Non-majors (3)
- FA 166 Ceramics for Non-majors (3)
- FA 167 Jewelry for Non-majors (3)
- FA 151 Reason and Revolution (honors only) (3)

**4b. A course in dance**

Complete DANC 106 Introduction to the Performing Arts (3)

**4c. A course in music**

Complete one of the following courses:

- MUSC 100 Introduction to Music Theory (3)
- MUSC 106 Introduction to the Performing Arts (3)
- MUSC 107 Music Appreciation (2)

**4d. A course in theatre arts**

Complete one of the following courses:

- CASI 240 Reel Women/Real Women (3)
- CTAR 106 Introduction to the Performing Arts (3)
- CTAR 150 Introduction to Theatre (3)
- \*CTAR 151 African American Theatre: An Introduction (3)
- CTAR 158 Fundamentals of Acting (3)
- CTAR 222 Drama and Play in Human Experience (3)
- CTAT 145 Introduction to Film Appreciation (3)

**CROSS-CULTURAL OR INTERNATIONAL STUDIES**

**Requirement: 1 course selected from Areas I-IV**

At least one approved course in cross-cultural or international studies must be completed in the process of meeting the requirements of the foregoing Areas I-IV. Approved courses are designated with an asterisk(\*).

**A: Rationale**

An understanding of significant U.S. minority groups, related foreign cultures, and women is important to gain an appreciation of the cultural diversity in this country. Relating each group or culture to the larger cultural and political context within this country enhances understanding of contemporary events and conditions.

**B: Meeting the Requirements**

This requirement may be fulfilled while also meeting the requirements in Areas I-IV. Select an approved course from Areas I-IV. Approved courses are designated with an asterisk (\*).

*\*Courses marked with an asterisk (\*) satisfy the cross-cultural/international studies requirement.*

**Honors Humanities Courses**

Honors courses in general education may be elected to satisfy the requirements in fine arts, history, literature, and philosophy.

These courses, whose subject matter often crosses disciplinary boundaries, may be taught by instructors from more than one discipline. Members of the University Honors Program are welcome to enroll. Other students with a grade point average of at least 3.0 may enroll by permission of the honors director.

Available honors humanities courses (see departmental listings for course description) and the areas satisfied are:

CLAS 104/HIST 104 Quest for Power: Famous Figures in History (3)  
Area: LITR or HIST

CLAS 106/LITR 106 Rome and America (6)  
Area: LITR (will satisfy both Area IV, 1 and 2)

FA 151/HIST 151 Reason and Revolution (3)  
Area: FA or HIST

LITR 150 Humanity and Technology (3)  
Area: LITR (will satisfy either Area IV, 1 and 2)

179/279/379/479 Special Topics (3)  
Area: Varies

### Future Changes in the General Education Program

Additional courses may be approved and refinements made periodically in the general education program.

General education transfer credit will be determined by Eastern Michigan University in cooperation with the college or university from which the student wishes to transfer credit. In most cases, equivalency lists exist.

### The MACRAO Agreement

Eastern Michigan University is a signator of the MACRAO (Michigan Association of Collegiate Registrars and Officers) agreement. The purpose of this agreement is to ensure that students who complete a specified distribution of general education courses at a community college will have satisfied 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 and have earned a grade of "C" or better in each required course, will be required to fulfill only the four additional courses now a part of Eastern Michigan University's general education requirements: an advanced writing or speaking course or a foreign language composition course; a mathematical reasoning course (unless waived by ACT scores); a computer literacy course; and a cross-cultural/international studies course, all from the approved list. This agreement applies only to general education and does not exempt the community college students from meeting all curriculum and graduation requirements.

### Majors/Minors

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

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

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

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

All students, including transfer students, must complete at Eastern Michigan University the following minimum requirements in advanced courses numbered 300 or above in their majors and minors, unless specifically exempted by the department concerned:

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

### Degree Requirements

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

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

Students with credit from a junior or community college must earn a minimum of 60 semester hours exclusive of junior or community college credit. This rule is waived if a program-to-program articulation agree-

ment is involved and the agreement is approved by the appropriate Eastern Michigan University departmental faculty, department head, and college dean and a Provost's office representative.

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

**Distance Education/Independent Learning Credit:** No more than 15 credit hours of correspondence course credit may be applied toward a bachelor's degree, or used 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.

**Physical Education and Health:** All students must earn at least 2 credits of physical education and health as follows:

Students who started any college Fall 1996 or later must select from the following options:

1. PEGN 210 Lifetime Wellness and Fitness
2. Any two courses in military science (2 semesters)
3. PEGN 140 Marching Band (2 semesters)
4. PEGN activity course requirements of the Music Therapy program (2 courses)

Students who started any college prior to Fall 1996 may select from 1 through 4 above OR 2 credit hours from any PEGN activity courses.

This requirement may be modified or waived if, for reason of physical disability, the student is unable to participate in physical education activity courses. Physical disability shall be determined by the health service and, in conference with the department chair of Health, Physical Education, Recreation and Dance, a decision will be made as to appropriate modification or waiver of the requirement to ensure maximum benefit to the student.

Any student may apply up to eight credit hours of credit earned in physical education activity courses to the minimum 124 credit hours required for graduation.

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

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

**Military Service/Science:** Students who have been in military service will be granted credit in Military Science as follows:

1. Those who have served for one year in the Army, Navy, Air Force, Marine Corps, Coast Guard (including attendance at service academies) will be given credit for the first two years of Military Science; those who have served for six months in service will be given credit for the first year of Military Science.
2. Students who have completed two years Junior ROTC will be given credit for the first year of Military Science with departmental approval; those who have completed three years will be given credit for the first two years of Military Science with departmental approval.

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

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



## Degree Candidates

Candidates for a degree and/or certificate must make formal application for graduation during the first two weeks of the final semester or session. (The application should be made after final registration is complete but not 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 \$30 graduation fee to the Cashier's Office, 201 Pierce Hall, or charged to the student's account.

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

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

## Certification

Six-year Provisional Teaching Certificates are conferred by the Michigan State Board of Education upon recommendation of Eastern Michigan University. The University recommends for provisional certification only those students who have satisfied the curricular requirements in one of the teacher education degree programs, and have completed and passed the appropriate tests.

Certificates always expire on June 30 of the calendar year. The two certificates recommended by Eastern Michigan University are:

State Elementary Provisional Certificate,\* which certifies the holder to teach all subjects in elementary grades (kindergarten-5) and appropriate majors and/or minors in grades 6-8 middle school, and 6-8 self-contained.

State Secondary Provisional Certificate all subjects,\* which certifies the holder to teach majors and minors in grades 7-12.

Certificates are issued by the Michigan State Department of Education. Issue date and expiration date are printed on the face of the certificate.

*\*A holder of this certificate who has completed EMU's curricular requirements in art, speech pathology, industrial arts, music, Japanese, or physical education is normally eligible to teach in the speciality in grades K-12.*

Vocational certificates qualify the holder to teach in the programs named below in schools offering programs that are reimbursed by federal and state funds allocated for that purpose. The vocational certificates issued are:

State Secondary Provisional Certificate with vocational endorsement in Office and/or Distributive Education.

State Secondary Provisional Certificate with vocational endorsement in Trade and Industrial Education.

Information on continuing certification may be obtained from the coordinator of continuing certification, 206 Porter.

## Professional certificate

As of July 1, 1992, the Continuing Certificate was discontinued. It was replaced by the Professional Certificate.

The Professional Certificate is issued for a period of only five years, and must be renewed every five years. Renewal of the Professional Certificate requires an additional six hours of credit.

**Other professional certificates and procedures are as follows:**

**Registration in Dietetics:** The American Dietetic Association issues a certificate of membership in dietetics upon successful completion of the coordinated dietetics curriculum. Successful completion of the national examination administered by the American Dietetic Association results in professional registration status with the American Dietetic Association.

**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.

**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.

**Registration in Music Therapy:** The National Association for Music Therapy, Inc. (NAMT) grants the Registered Music Therapist (RMT) status. Upon successful completion of the approved curriculum in music therapy and a continuous six-month, 1,040-hour clinical training (internship) period at an NRMT-approved clinical training center, the student is eligible to apply for registration as a music therapist.

**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.

**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.

**International Diplomas in Business French, German and Spanish:** The Chamber of Commerce and Industry of Paris awards a "Certificat pratique de français économique et commercial" and a "Diplôme supérieur de français des affaires" upon successful completion of examinations held at Eastern Michigan University. Candidates should be enrolled in the Language and International Trade curriculum or in the Business French major.

The Carl Duisberg Society, in cooperation with the Goethe House, awards a "Zertifikat Handelsdeutsch" upon successful completion of examinations held at Eastern Michigan University. Candidates should be enrolled in the Language and International Trade curriculum or in the Business German major.

Examinations leading to the "Diploma de español comercial" and the "Certificado de español comercial básico" granted by the Chamber of Commerce and Industry of Madrid in cooperation with the Official School of Languages of Madrid are administered at Eastern Michigan University. Candidates should be enrolled in the Language and International Trade curriculum or the Business Spanish major.



# Academic Advising Center

**Patricia L. Williams**  
**Director**  
**301 Pierce Hall**  
**734.487.2171**

The Academic Advising Center 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. It is the first formal academic 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 provides a resource to faculty advisers to answer general advising questions. The center also coordinates and administers the Second Bachelor degree program, the Individualized Studies program and the Three-Year Accelerated Baccalaureate degree program.

Retention support includes the following: administration of the PASS (Promote Academic Survival and Success) program; administration of the Academic Mentor program; assistance to students in the Summer Incentive program; 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) late and retroactive withdrawal requests; (4) general education requirement waivers for English and mathematics, and high school science verification; and (5) application of transfer credit to the general education requirements.

## Basic Degree Curricula

### Bachelor of Science and Bachelor of Arts

**Patricia L. Williams**  
**Associate Director**  
**Academic Advising Center**  
**301 Pierce Hall**  
**734.487.2170/734.487.2171**

*In symbolics and communication, science and technology, social science, and arts and humanities listed below, the usual number of credit hours to be completed is given, but it is the courses that must be completed, not a minimum or maximum number of credit hours in each. (A course must be awarded a minimum of two credit hours of credit.)*

Area	Sem hours
<b>Symbolics and communication</b> .....	<b>8-18</b>
One course in written composition (or waiver).	
One course in speech communication.	
One course in one of the following:	
a. an upper-level course in written composition.	
b. an upper-level course in speech communication.	
c. a course in foreign language composition.	
One course in mathematical reasoning (or waiver).	
One course in computer literacy.	
<b>Science and technology</b> .....	<b>9-14</b>
One course in physical science.	
a. You must complete a course in chemistry or physics unless you submit appropriate evidence that you completed	

**Licensure in Nursing:** Graduates of the nursing program receive a Bachelor of Science in Nursing degree and are eligible to qualify as registered nurses through the Michigan Board of Nursing licensure examination. This examination is given at times and places specified by the State Board of Nursing, usually twice a year. Candidates should file application immediately after the official completion date of degree requirements. Upon receipt of the application and all credentials, a temporary permit to practice will be issued and an examination date assigned. Licensure is granted upon successful completion of the State Board of Nursing licensure examination.

## 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 printed in the Class Schedule Book each semester.

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

Forms are filed in the Office of Records and Registration and processed according to expected graduation date. A graduation auditor checks the credit hours taken and records the credit hours still needed. One copy of this audit is mailed to the student, another is sent to the student's major department, and the third 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 in 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.

## Academic Assessment

The North Central Association of Colleges and Schools (NCA) is EMU's regional accrediting body. They have mandated that every college and university in the NCA region have a plan for assessing both general education and each academic major in place 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 Services' "Tasks in Critical Thinking." Between 200 and 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.

a one unit course in high school with a grade of "C" or above.

- b. If you have submitted proof of having completed a one unit high school course in chemistry or physics, you may satisfy this requirement by choosing among chemistry, earth science/geology, or physics/astronomy.

One course in life science (biology or psychology).  
 One course in science or technology, chosen from a department other than ones in which you have completed your physical and life science requirements.

**Social science ..... 12**

- One course in United States government.
- One course in history.
- One course in anthropology, economics, geography, or sociology whose content includes the structure and methodology of the discipline.
- One of the following:
  - a. A second course in a two-course history sequence
  - b. A second course in a two-course sequence in anthropology, economics, geography, or sociology whose content includes the structure and methodology of the discipline.
  - c. An approved course in cross-cultural or international studies.

**Arts and humanities ..... 11-12**

- One of the following:
  - a. A course in literature.
  - b. An intermediate or advanced foreign language literature course
- One of the following:
  - a. A second course in literature.
  - b. An intermediate or advanced foreign language literature course.
  - c. A course in oral communication.
  - d. A course in cross-cultural or international studies.

A course in philosophy or religion.  
 A course in art, dance, music or theatre arts.

**Cross-cultural or international studies ..... 3**

- One course selected from general education areas I-IV.  
 (The B.A. degree requires completion of one year college credit in a foreign language.)

<b>Major (minimum) .....</b>	<b>30</b>
<b>Minor (minimum) .....</b>	<b>20</b>
<b>Physical Education/Graduation Requirement .....</b>	<b>2</b>
<b>Electives .....</b>	<b>16-32</b>
<b>Total .....</b>	<b>124</b>

# The Learning Center

**Lynette Findley**  
**Director**

**Judy Mack**  
**Learning Center Specialist**

**Terri Johnson**  
**Project Coordinator**

**Bruce T. Halle Library, Room G-04**  
**734.487.2133**  
**TTY: 734.487.2482**  
**E-mail: Learning Center@emich.edu**  
**TLC website: www.emich.edu**

The Learning Center (TLC) provides students with a campus-wide network of learning assistance programs designed to develop independent learning skills necessary for academic success. TLC provides the following tutoring assistance programs: (1) Individual Tutors. Available at no cost and non-remedial to students who wish to work one-on-one with a peer tutor to improve their understanding of a particular course. (2) Supplemental Instruction (SI) workshops are designed to assist the student in a first-year, large lecture course to develop effective study strategies. A SI tutor will lead small discussions on note-taking, study strategies and test taking which are integrated into the course-related material. Mentor programs are also available to help students achieve the maximum educational benefit available at Eastern Michigan University.

TLC also provides Academic Skills Development Workshops: Effective Textbook Reading, Note Taking Skills, Test Taking Tips, Learning Styles, Assessing Your Progress, and Time Management. TLC contacts students who are referred by faculty because they may be experiencing academic difficulty or who are on academic probation, through its Early Warning Alert Program. The Center works with these students in their efforts to return to good academic standing.

The retention tracking program developed by TLC provides relevant, reliable database management and allows the University to assess student populations and develop program interventions to increase student retention.

The following University pre-college programs are coordinated through The Learning Center: (1) The Martin Luther King Jr./Cesar Chavez/Rosa Parks (KCP) College Days program serves junior high school through senior high school students. It orients them to campus life, helps build self-esteem and motivation, and exposes them to a wide variety of career options. (2) The Wade McCree Scholarship program awards 30 general fund scholarships annually in the fall to under-represented students entering the ninth grade. (3) The Summer Incentive program allows high school graduating seniors with high academic potential the opportunity to take classes at the University during the summer and, if successful, enroll in the fall.

## Career Services Center

Web site: [www.carserv.admsrv.emich.edu](http://www.carserv.admsrv.emich.edu)

**J. Michael Erwin**

**Director**

**318 King Hall**

**734.487.0400**

**Adjunct Offices**

**Career Horizons:**

**First Year Center, 135 Putnam Hall**

**734.487.0267**

**College of Business:**

**210 Owen Building**

**734.487.4099**

**College of Technology:**

**109-D Sill Hall**

**734.487.9789**

The Career Services Center (CSC) provides a centralized service to help students plan their careers, develop job search skills, obtain employment during their academic career and secure a job upon graduation. Services are available to enrolled students and, to a more limited extent, EMU alumni.

In the area of career planning, CSC provides diagnostic testing, computerized career guidance services and personal career counseling. In addition, the CSC Resource Center contains an extensive collection of reference materials on career opportunities, self-assessment, job vacancy announcements, employer literature, and hundreds of other career-related items.

CSC offers an innovative career planning program called Career Choice. CSC, in conjunction with a number of other EMU departments, 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 career-related work experiences such as internships and Cooperative Education placements. These experiences help students gain exposure in their chosen career fields and gain the 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 freshman year.

Additional work opportunities are offered through CSC's Student Employment Office. This office is the central clearinghouse for all on-campus job openings for students and for job openings near campus and in other nearby cities. 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, these jobs give students practical work experience and a chance to earn money toward college expenses.

CSC placement services assist seniors, graduate students, and alumni in seeking employment after graduation and obtaining professional advancement throughout their careers. Available services include:

- Résumé, interviewing and job search strategy work shops
- "Career Search" manual available to all seniors
- "Job-Line" phone-in service that lists available job openings
- On-campus interview program
- Candidate referral programs, including two national services
- "Perfect Résumé" software packages
- A number of annual job fairs that attract hundreds of employers
- Free drop-off résumé critiquing service

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

## Dean of Students

**Gregory A. Peoples**

**Dean**

**211 King Hall**

**734.487.3118**

The Office of the Dean of Students serves undergraduate and graduate students through the combined offices of Access Services; Center for Multicultural Affairs; Foreign Student Affairs; Greek Affairs; Lesbian, Gay, Bisexual and Transgender Resource Center; Student Government; Veterans Services; and the Women's Center.

These areas focus on enhancing the quality of life for all students attending EMU by eliminating barriers that prohibit learning and by offering educational and developmental services, promoting cultural diversity, and advocating on behalf of students.

The Conduct Code and Judicial Structure is adjudicated through the Dean of Students Office.

### Access Services Office

**Robert E. Teehan**

**Coordinator**

**203 King Hall**

**734.487.2470**

The Access Services Office (ASO) utilizes campus and community resources to support students in accomplishing their educational goals. The ASO works closely with faculty and University departments, and with federal and state agencies, such as Michigan Vocational Rehabilitation and the Michigan Commission for the Blind.

Students may request aid in finding notetakers, relocating classrooms, assistance with wheelchairs, special housing accommodations, and procedures for applying for interpreters. Since it is the intent of the office to respond to students' unique needs, they are urged to contact the office personally for information and/or assistance.

### Center for Multicultural Affairs

**Shelly Wilson**

**Coordinator**

**220 King**

**734.487.2377**

The mission of the Center for Multicultural Affairs (CMA) is to provide programs and services that reflect the heritage of African American, Latino and Native American students and to promote their academic, social, personal and professional development. Our aim is to enrich the EMU community by helping faculty, staff and students live, learn and teach effectively in a diverse university setting.

The Center for Multicultural Affairs works to ensure a secure and supportive learning environment for all students by coordinating with other University offices and programs to ensure that all activities are inclusive and responsive to student needs.

Services provided include:

- assistance and support for programs and organizations that promote the interests of African American, Latino and Native American students.
- the Multicultural Lounge, a popular location for studying, meetings, programs and activities.
- information on campus and community programs and activities that reflect African American, Latino and Native American heritage and issues.
- support and sponsorship for activities throughout the year, including workshops, films, conferences, exhibits, lectures and trips.

- campus programs and information for Hispanic Heritage Month, Native American History Month and Black History Month.
- educational resources such as videos, books and periodicals.
- work shops, presentations and other programs on a variety of topics.

## Office of Foreign Student Affairs

**Paul Dean Webb**  
**Director**  
**111 King Hall**  
**734.487.3116**

The Office of Foreign Student Affairs extends a welcome to all foreign 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 foreign student affairs and acts as a catalyst for the development of various international connections in the University and/or community to promote international education and understanding and initiates enhancement programs such as cross-cultural activities on and off-campus.

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

## Greek Affairs

**Stacy Cross**  
**Adviser**  
**210 King Hall**  
**734.487.6841**

The Greek Affairs Office assists fraternities and sororities to function effectively and to contribute to the EMU community. The office serves as a resource for active and future members, providing information about Greek life at EMU.

The Greek Affairs Office provides information and support for men and women who choose to become involved in the Greek system. The office also promotes leadership development and responsible university and community involvement through programming, activities and campus partnerships.

## Lesbian, Gay, Bisexual, and Transgender Resource Center

**Kathleen Russell**  
**Coordinator**  
**209 King Hall**  
**734.487.4149**

The LGBTRC advocates for and addresses the needs of students, faculty and staff regarding issues related to sexual orientation and identity. It serves as a link to the community by providing referral services as well as educational and social programming.

Services include campus programs and activities, student advocacy, and individual consultation and campus/community referrals.

## Student Government

**Governed by the President**  
(Elected each spring)  
**011 McKenny Union**  
**734.487.1470**

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

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

## Veteran Services Office

**Robert E. Teehan**  
**Coordinator**  
**205 King Hall**  
**734.487.3119**

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

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

## Women's Center

**208 King Hall**  
**734.487.4282**

The Women's Center encourages and supports the personal growth, academic enrichment and professional development of all women at EMU.

In an effort to assist women in reaching their full potential, the Center is committed to:

- recognizing and celebrating the diverse representation of women;
- providing information and educational programming in response to stated concerns;
- continuing to offer advocacy and referral services.

# **Division of Academic Affairs**

**Ronald W. Collins**

**Provost and Vice President for Academic Affairs**

**Kenneth W. Rusiniak**

**Interim Associate Vice President for Academic Affairs**

**Donald M. Loppnow**

**Associate Vice President for Extended Programs**

**Susan E. Moeller**

**Director of Academic Budget and Operations**

**Lori Ristau**

**Administrative Associate**

**106 Welch Hall**

**734.487.3200**

**College of Arts and Sciences**

**College of Business**

**College of Education**

**College of Health and Human Services**

**College of Technology**

**Graduate School**

**Office of Research Development**

**Learning Resources and Technologies**

**Center for Research Support**

**Center for Instructional Computing**

**University Honors Program**

**Faculty Center for Instructional Excellence**

**Extended Programs**

**Community College Relations**

**Continuing Education**

**Centers for Corporate Training**

**Institute for Diversity and Business Services**

**Institute for the Study of Children, Families and Communities**

**National Institute for Consumer Education**

**World College**

**Academic Assessment**



## Individualized Studies Program

**Charles Fulford**  
**Assistant Director**  
**Academic Advising Center**  
**301 Pierce Hall**  
**734.487.2170/734.487.2171**

An individualized studies program (ISP) may be designed to replace the major and minor of students whose educational, vocational, or professional goals cannot be met by majors and minors currently available to EMU students. The four basic criteria for completing this program are: (1) three distinct discipline areas; (2) a concentration of 60-63 credits; (3) at least 15 hours at EMU in 300-400 level courses and (4) support from representative departments.

All students who apply for this program are still responsible for other graduation requirements, such as general education, physical education, and residency policies. Interested students should contact Charles Fulford, Assistant Director, Academic Advising Center, 301 Pierce Hall, to discuss their goals.

### Division of Academic Affairs Courses

#### **AADV 177/178/179 Academics, Affiliation, and Achievement**

**1/2/3 hrs**

Restricted to first-time entering freshmen only. This course provides students the information and skills that help make the transition to college more successful. Students learn how to effectively manage the university system, what study techniques can enhance their grades, and how to live and learn in a multicultural environment. In addition, the classes are small and allow students to develop individual relationships with the faculty/staff teaching team members and other students in the class. This class prepares students for success at EMU and beyond.

#### **AADV 279 Special Topics: Prior Learning and Portfolio**

**Development**

**3 hrs**

Course goals are to assist students in clarifying educational, career, and personal goals by developing a portfolio that documents experience and identifies learning for evaluation by appropriate departmental faculty for possible award of degree credit.

*Prereq: Department permission.*

**Library**  
**(Learning Resources and Technologies)**

**Morell D. Boone**  
**Dean**

**Jennie Meyer McCafferty**  
**Associate Dean**

**Sandra G. Yee**  
**Department Head**  
**Learning Resources (Library)**

**955 West Circle Drive**  
**734.487.0020**

## Library (Learning Resources and Technologies)

Learning Resources (Library)  
Learning Technologies (Academic Computing)  
Center for Instructional Computing (Faculty Commons)

Web site: [www.emich.edu/public/lrt/lrt.html](http://www.emich.edu/public/lrt/lrt.html)

**Morell D. Boone**  
Dean  
Learning Resources and Technologies

**Jennie Meyer McCafferty**  
Associate Dean  
Learning Technologies (Academic Computing)

**Sandra G. Yee**  
Department Head  
Learning Resources (Library)

955 West Circle Drive  
734.487.0020

**Professors:** Fred Blum, Morell Boone, George Grimes, Twyla W. Mueller Racz, Sandra G. Yee  
**Associate Professors:** Sarell W. Beal, Rita J. Bullard, J. Ronda Glikin, Joanne J. Hansen, Walter P. Hogan, Rosina Tammany  
**Assistant Professors:** Ann Andrew, Margaret E. Best, Sarah Cogan, Ronald P. Colman, Edna Ewell, Rhonda Fowler, Barbara Glover, Raymond Lucas, Mary A. Meernik, Heidi Mercado, Keith J. Stanger  
**Instructors:** Joseph Badics; Elizabeth Bucciarelli; Carolyn A. Kirkendall; Glenn E. Mensching, Jr.

The newly constructed Bruce T. Halle Library supports two major responsibilities: Learning Resources (including Library collections and services) and Learning Technologies (including the Computing Commons, the Multimedia Commons and the Faculty Commons). The Halle Library supports the academic mission of the University through its state-of-the-art services, collections, technologies, facilities and equipment.

The Library is essential to the instructional programs of the University. It houses more than 600,000 volumes (more than 350,000 of which are stored in the Automated Retrieval Collection), more than 100,000 bound periodicals, 200,000 government documents, more than 50,000 maps, 665,000 microforms and more than 6,500 videotapes and music CDs, and subscribes to more than 4,300 journals.

Special collections include the Map Library, Government Information Collection, Children's Literature and University Archives. Features of the new Halle Library include a centralized Reference Collection; enhanced electronic services; a 100-seat auditorium; a totally automated Voyager online public access catalog system with links to full-text materials, the Internet, and an expanding variety of electronic services and databases. Additional features include collaborative study rooms, the Newspaper Room, the Carillon Room, a Reception Desk to circulate materials, distance learning and electronic learning laboratories, teleconferencing facilities, the Paradox Café, photocopying services, reserved reading materials assigned for use in course work and located at the Reception Desk, and a Computer Store offering discounted computers and software to EMU staff and students. Located in the atrium, the Information Desk is staffed by librarians who are prepared to assist clients in using the collections and locating sources.

Librarians offer a comprehensive range of orientation and instructional services and are available to consult with clients concerning their information needs, and to assist in developing search strategies and accessing resources. Subject-specialist librarians can also assist teaching

faculty by working with them to design tours and instructional sessions for their classes. This progressively designed instruction in locating and using information resources prepares students for lifelong learning after their formal education is completed. Appointments can also be scheduled with individual librarians through the Information Services Office.

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

The Multimedia Commons provides multimedia computer workstations, reserved software required for classes, and software for preparing presentations and other multimedia projects. Multimedia Services provides media, mixed-media and multimedia distribution, as well as video-conferencing services including video and film circulation, media equipment distribution, satellite broadcast reception teleconferencing, and preview facilities. Production and self-production services are also available, including flatbed scanning, slide scanning, laminating, dry mounting, transparency production, copy stand, audio dubbing, digital video and audio editing, CD-ROM burning, large-format printing and color printing. Video Services includes television programming, video dubbing and editing, and off-the-air recording.

Client Services provides room scheduling, cash transactions, and directions to Halle Library's locations and services. The Welcome Center, staffed by student peers, provides information and assistance to students and first-time users of the Voyager on-line catalog, and computing workshops; helps students sign up for electronic mail and Internet accounts; and coordinates tour schedules.

The Computing Commons offers Windows and Macintosh workstations with Internet access, electronic mail, word processing and spreadsheet software. The Faculty Commons includes PC and Macintosh workstations, printers, scanners and a variety of productivity software for faculty use. A faculty lounge offers the latest computing trade publications and notices of teaching, technology and learning workshops, and seminars. Workshops and training on Internet applications, for productivity software and for on-line and distance course development, are also offered in conjunction with the Center for Instructional Computing, Learning Technologies and Library faculty.

Learning Technologies coordinates instructional and research computing services including servers supporting Digital VMS and Unix operating systems, dial-up access, World Wide Web servers and electronic mail. Communication services include list-servers and WebCaucus, an on-line conferencing or computer-mediated communications program with a Web front-end, which is also a useful means of publishing on the Web. In addition to the computing facilities at Halle Library, Learning Technologies supports computing labs at the Owen College of Business and McKenny Union. Learning Technologies' user consultants provide assistance for on-line course development, statistical software, computer conferencing, Internet access, multimedia applications, electronic mail, and more.

# **College of Arts and Sciences**

**Barry A. Fish  
Dean**

**Ellene T. Contis  
Interim Associate Dean**

**James C. Waltz  
Associate Dean**

**Bernard J. O'Connor  
Assistant Dean**

**Velma Clark  
Administrative Associate**

**411 Pray-Harold  
734.487.4344**

## **DEPARTMENTS**

**African American Studies**

**Art**

**Biology**

**Chemistry**

**Communication and Theatre Arts**

**Computer Science**

**Economics**

**English Language and Literature**

**Foreign Languages and Bilingual Studies**

**Geography and Geology**

**History and Philosophy**

**Mathematics**

**Music**

**Physics and Astronomy**

**Political Science**

**Psychology**

**Sociology, Anthropology and Criminology**

**Women's Studies**



## College of Arts and Sciences

Web site: [www.emich.edu/public/art\\_sci/frameset.htm](http://www.emich.edu/public/art_sci/frameset.htm)

### College of Arts and Sciences Courses

Departments and programs of the College of Arts and Sciences offer most of the courses forming traditional university liberal arts or general education requirements. These courses provide the foundation for further work in the college's wide range of major and minor programs, or for specialized curricula in the university's other colleges. The College offers students additional opportunities for enrichment and career exploration through independent study, research projects and special activities, internships and cooperative education placements, and the University Honors Program.

### 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 credit 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 forestry; pre law; pre medicine and pre osteopathic medicine; pre mortuary science; pre pharmacy; and pre religious careers. Two other preparatory programs are shared with the College of Technology: pre architecture and pre engineering.

### Departments and programs within the college

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

### College of Arts and Sciences Courses

**CASI 177/178/179 Special Topics** 1/2/3 hrs  
Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CASI 206 Culture and the Holocaust** 3 hrs  
Culture and the Holocaust is an interdisciplinary examination of the Holocaust—the systematic murder of more than six million Jews, Slavs, Gypsies, homosexuals and others judged politically and racially undesirable by the Nazi regime of Adolf Hitler. The course is open to all students of the University.

**CASI 240 Reel Women/Real Women** 3 hrs  
This course examines issues concerning women and film from the interdisciplinary perspectives of communications, women's studies and philosophy. Different techniques for critical analysis will be used to study how film represents gender, race, class and culture.

**CASI 277/278/279/280 Special Topics** 1/2/3/4 hrs  
Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CASI 377/378/379 Special Topics** 1/2/3 hrs  
Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CASI 477/478/479 Special Topics** 1/2/3 hrs  
Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

# African American Studies

Web site: [www.emich.edu/public/daas/index.html](http://www.emich.edu/public/daas/index.html)

**Robert L. Perry**  
 Department Head  
 620 Pray-Harrold  
 734.487.3460

E-mail: [robert.perry@emich.edu](mailto:robert.perry@emich.edu)

**Professors:** Robert L. Perry, Clovis E. Semmes, Ronald C Woods  
**Associate Professor:** Victor O. Okafor, Melvin T. Peters  
**Assistant Professors:** TeResa Green

The department offers an undergraduate major and a minor in African American Studies. The undergraduate program examines the Black experience in the Americas, the Caribbean, and Africa from historical and contemporary perspectives. It studies the African American experience in particular as an entity in its own right but as a microcosm of dynamics operating in the domestic and global settings. The program addresses the multidimensionality of the Black experience, including its historical, political, policy, legal, economic, sociological, psychological, religious and artistic dimensions.

Objectives of the department are: 1) to cultivate and disseminate knowledge about the African American experience in particular and the global Black experience in general, 2) to provide students with the knowledge, skills and techniques necessary for effective functioning in a multicultural, technologically-advanced society, and 3) to enhance the students' understanding of the role of multiple factors, such as race, gender and class in shaping the sociopolitical and economic order.

## Programs of Study

**Major:**  
 African American Studies

**Minor:**  
 African American Studies

Advising is available through the African American Studies department head and faculty.

## African American Studies Major

**ISIS major code: AF01**

**Required courses:** ..... 9

- #AAS 101 Introduction to African American Studies (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) .... 3
- AAS 201 Foundations of Knowledge in African American Studies ..... 3
- AAS 401 African American Studies Research Seminar ..... 3

**Restricted electives:** ..... 21

Choose 21 credits from the following:

- AAS 221 African American Social Movements (3)
- AAS 231 Urbanization and the African American Community (3)
- AAS 311 The African Diaspora (3)
- AAS 351 The Social Context of African American Health (3)
- AAS 361 The African American Family (3)
- AAS 441 Law in the African American Experience (3)
- #HIST 315 History of Black Americans (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #LITR 260 African American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)

**Elective:** ..... 3

Choose one course from the following:

Any course offered by the African American Studies Department, including independent studies and special topics; or:  
 #CTAR 151 African American Theatre: An Introduction (satisfies general education requirement IV.4 and the cross-cultural/international studies requirement) (3)

CTAR 251 African American Theatre: Creative Problems (3)

ECON 332 Urban Economics (3)

GEOG 322 Geography of Africa (3)

GEOG 332 Urban Geography (3)

HIST 347 Sub-Saharan Africa to 1885 (3)

HIST 365 The Old South (3)

PLSC 372 Government and Politics of Sub-Saharan Africa (3)

PSY 340 Psychological Perspectives on Prejudice and Discrimination (3)

SOCL 306 The Urban Community (3)

These courses satisfy general education requirement III.4 and the cross-cultural/international studies requirement:

#ANTH 236 Peoples and Cultures of Africa (3)

#ECON 321 Minority Workers in the Labor Market (3)

#HIST 342 North Africa, 1798 to the Present (3)

#HIST 348 20th-Century Africa (3)

#SOCL 214/#ANTH 214 Racial and Cultural Minorities (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/aas/ugrad/major/aas.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/aas/ugrad/major/aas.html).

**Total:** ..... 33 hours

**Advising note:** 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.

## African American Studies Minor

**ISIS minor code: AF01**

**Required courses:** ..... 9

- #AAS 101 Introduction to African American Studies (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) .... 3
- AAS 201 Foundations of Knowledge in African American Studies ..... 3
- AAS 401 African American Studies Research Seminar ..... 3

**Restricted electives:** ..... 9

Choose nine credits from the following:

- AAS 221 African American Social Movements (3)
- AAS 231 Urbanization and the African American Community (3)
- AAS 311 The African Diaspora (3)
- AAS 351 The Social Context of African American Health (3)
- AAS 361 The African American Family (3)
- AAS 441 Law in the African American Experience (3)
- #HIST 315 History of Black Americans (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #LITR 260 African American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement)

**Elective:** ..... 3

Choose one course from the following:

Any course offered by the African American Studies Department, including independent studies and special topics; or:

#CTAR 151 African American Theatre: An Introduction (satisfies general education requirement IV.4 and the cross-cultural/international studies requirement) (3)

CTAR 251 African American Theatre: Creative Problems (3)

GEOG 332 Urban Geography (3)

HIST 347 Sub-Saharan Africa to 1885 (3)

HIST 365 The Old South (3)

PLSC 372 Government and Politics of Sub-Saharan Africa (3)

PSY 340 Psychological Perspectives on Prejudice and Discrimination (3)

SOCL 306 The Urban Community

*These courses satisfy general education requirement III.4 and the cross-cultural/international studies requirement:*

#ANTH 236 Peoples and Cultures of Africa (3)

#ECON 321 Minority Workers in the Labor Market (3)

#HIST 342 North Africa, 1798 to the Present (3)

#HIST 348 20th-Century Africa (3)

#SOCL 214/#ANTH 214 Racial and Cultural Minorities (3)

**Total:** ..... 21 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### African American Studies Courses

**AAS 101 Introduction to African American Studies** 3 hrs

An introductory examination of the African American experience. Acquaints students with the trends, issues and forces that have shaped that experience; considers the concepts of cultural adaptation, institutional development, and group self-definition; and surveys the contemporary status and condition of African Americans.

**AAS 177/178/179 Special Topics** 1/2/3 hrs

Each time offered, this course will explore a topic on an experimental basis, based on student interests and needs. This course can be used in completing requirements for the major or minor in African American Studies.

*Prereq: Department permission.*

**AAS 201 Foundations of Knowledge in African American Studies** 3 hrs

Examines the empirical and theoretical foundations of African American studies, the evolution of the field, and the role of key scholars in its development.

*Prereq: AAS 101.*

**AAS 221 African American Social Movements** 3 hrs

Explores the collective efforts undertaken by African Americans to elevate their group status in American society. Analyzes the struggle for human freedom through an examination of resistance to chattel slavery, the quest for civil rights, and the response to structured inequality.

*Prereq: AAS 101.*

**AAS 231 Urbanization and the African American Community** 3 hrs

Examines the urban African American community. Studies relevant migratory patterns, and the impact of urbanization on the culture, politics, and economic status of African Americans. Considers public policy issues involving African Americans in an advanced industrialized society.

*Prereq: AAS 101.*

**AAS 277/278/279 Special Topics** 1/2/3 hrs

Each time offered, this course will explore a topic on an experimental basis, based on student interests and needs. This course can be used in completing requirements for the major or minor in African American Studies.

*Prereq: AAS 101 or department permission.*

**AAS 297/298/299 Independent Study** 1/2/3 hrs

Independent study of a select topic under staff supervision. Possible approaches include library research, field research, and participant-observer experiences.

*Prereq: AAS 101 or department permission.*

**AAS 311 The African Diaspora** 3 hrs

Examines the African diaspora—the dispersion of persons of African descent throughout the world. It studies the process of dispersion, examines select diasporic communities, and considers the impact of the African presence on world development.

*Prereq: AAS 101 or department permission.*

**AAS 312 African Civilization** 3 hrs

This course is designed to provide the student with an interdisciplinary knowledge of centers of African civilization from antiquity to the 1960s. Those centers include ancient Egypt, Songhai, Kilwa and Monomotapa.

*Prereq: AAS 101 and junior or senior standing.*

**AAS 313 Contemporary Africa: Prospects** 3 hrs

This course serves as a survey of Africa's contemporary political economy. In examining postcolonial developments, the course focuses on regional and national strategies for social transformation.

**AAS 351 The Social Context of African American Health** 3 hrs

Examines the health status of African Americans. Explores the interplay between environment, biology and culture; folk and popular health practices; and the organization and delivery of health care.

*Prereq: AAS 101 or department permission.*

**AAS 361 The African American Family** 3 hrs

Examines the historical and contemporary forces shaping the African American family. Analyzes urbanization, economic transformations, and institutionalized racism. Studies the role of the family in human survival and progress.

*Prereq: AAS 101 or department permission.*

**AAS 377/378/379 Special Topics** 1/2/3 hrs

Each time offered, this course will explore a topic on an experimental basis, based on student interests and needs. This course can be used in completing requirements for the major or minor in African American Studies.

*Prereq: AAS 101 or department permission.*

**AAS 401 African American Studies Research Seminar** 3 hrs

Provides intensive exposure to research methods in African American studies, and offers an opportunity for primary research in the field.

*Prereq: AAS 201 and junior or senior standing, or department permission.*

**AAS 441 Law in the African American Experience** 3 hrs

Examines the African American legal experience from the Atlantic slave trade to the present. Reviews the formation of the Constitution, the law of slavery, Reconstruction-era developments, Jim Crow segregation, and recent legal trends in areas such as education, voting and employment. Emphasizes law as a social process.

*Prereq: AAS 101 and junior or senior standing, or department permission.*

**AAS 477/478/479 Special Topics** 1/2/3 hrs

Each time offered, this course will explore a topic on an experimental basis, based on student interests and needs. This course can be used in completing requirements for the major or minor in African American Studies.

*Prereq: AAS 101 or department permission.*

**AAS 497/498/499 Independent Study** 1/2/3 hrs

Independent study of a select topic under staff supervision. Possible approaches include library research, field research, and participant-observer experiences.

*Prereq: AAS 401 and junior standing, or department permission.*

# Art

Web site: [www.art.acad.emich.edu/](http://www.art.acad.emich.edu/)

**Thomas Venner**  
**Department Head**  
 114 Ford Hall  
 734.487.1268

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**Professors:** Marvin Anderson, Barry Avedon, Igor Beginin, Christopher Bocklage, Robert Chew, Richard Fairfield, Jan Michael Field, Fredrick Hunter, Roy Johnston, John Loree, Julie Myers, Gretchen Otto, John Pappas, Richard Rubenfeld, James Sandall, Ellen Schwartz, David Tammany, John E. Van Haren, Thomas Venner, Patricia J. Williams, Jay Yager, Michael Zahratka

**Associate Professors:** Margaret Davis, Diana Pancioli, Carole Pawloski, Richard Washington

**Assistant Professor:** Brian Schorn

The Art Department administers programs leading to the bachelor of fine arts degree, curricula for teachers of art, an art major and minor, and a major and minor in art history. The department also participates in the arts group major and minor for elementary and special education teachers.

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

## Degrees

Bachelor of Fine Arts  
 Bachelor of Fine Arts plus teacher certification  
 Bachelor of Arts in Art History  
 Bachelor of Art Education  
 Bachelor of Science in Art

## Programs of Study

### Majors:

Fine Arts (B.F.A.)  
 Fine Arts plus teacher certification—K-12 (B.F.A.)  
 Art (B.S.)  
 Art History (B.A.)  
 Art Education—K-12 (B.A.E.)

### Minors:

Art  
 Art Education  
 Art history

### Advising Coordinators:

Art major and minor, fine arts curriculum: Igor Beginin  
 Art education curriculum: Christopher Bocklage, Gretchen Otto  
 Art history major and minor: Ellen Schwartz, Richard Rubenfeld, Julia Myers  
 Honors in art: Jay Yager

Graduate programs under the auspices of the department lead to the master's degree in art education and studio art. The M.A. (studio or art education) and M.F.A. degrees are described in the graduate catalog.

## Bachelor of Fine Arts

### ISIS major code: AR01

The fine arts curriculum, leading to a bachelor of fine arts degree, is designed for students who plan to enter occupations in which a substantial background in art is required. Students completing the 54-60 credit hours within this curriculum will have satisfied all major and minor requirements for graduation.

<b>Required courses:</b> .....	<b>27</b>
#FA 107 Art History Survey I (satisfies general education requirement IV.4) .....	3
#FA 108 Art History Survey II (satisfies general education requirement IV.4) .....	3
#FA 122 Two-Dimensional Design (satisfies general education requirement IV.4) .....	3
#FA 123 Drawing I (satisfies general education requirement IV.4) .....	3
FA 124 Drawing II .....	3
FA 210 Life Drawing .....	3
FA 215 History of 19th Century Art .....	3
FA 216 History of 20th Century Art .....	3
FA 231 Three-Dimensional Design .....	3

### Area of concentration: ..... 12

Choose a sequence of four courses in the major area (ceramics, drawing, graphic design, jewelry, painting, photography, printmaking, sculpture, textiles, or watercolor/painting)12

*Note:* the graphic design concentration requires six courses (18 hours)

### Electives in fine art (studio art courses): ..... 15-21

*Note:* the graphic design concentration requires 9-15 hours of electives

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/art/ugrad/major/bfa.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/art/ugrad/major/bfa.html).

### Total: ..... 54 hours

*#Advising note:* 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.

## Bachelor of Fine Arts (plus teacher certification sequence)

K-12 Teacher Certification

### ISIS major code: AR31

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in art, certification code "LX." The certification test covering this field is #41, "Art Education."

### Teaching Major: ..... 54

#FA 107 Art History Survey I (satisfies general education requirement IV.4) .....	3
#FA 108 Art History Survey II (satisfies general education requirement IV.4) .....	3
#FA 122 Two-Dimensional Design (satisfies general education requirement IV.4) .....	3
#FA 123 Drawing I (satisfies general education requirement IV.4) .....	3
FA 124 Drawing II .....	3
FA 210 Life Drawing .....	3
FA 215 History of 19th Century Art .....	3
FA 216 History of 20th Century Art .....	3
FA 231 Three-Dimensional Design .....	3

Six courses from the following list of courses, plus a sequence of *three* advanced courses (e.g., FA 355 Textiles, FA 356 Textiles, FA 455 Textiles) from one of the following concentrations: ceramics, drawing, graphic design, jewelry,



painting, photography, printmaking, sculpture, textiles, or watercolor/painting:

- FA 201 Introduction to Graphic Design I (3)
- FA 235 Textiles (3)
- FA 304 Beginning Photographic Imagery (3)
- FA 305 Printmaking (3)
- FA 307 Ceramics (3)
- FA 310 Sculpture (3)
- FA 313 Painting (3)
- FA 314 Watercolor I (3)
- FA 320 Jewelry (3)
- FA 432 Drawing III (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/coa/art/ugrad/major/bfa\\_t.html](http://www.emich.edu/public/catalogs/current/afac/colleges/coa/art/ugrad/major/bfa_t.html).

*#Advising note:* 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.

## Bachelor of Art Education K-12 Teacher Certification

**ISIS major code: AR32**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in art, certification code "LX." The certification test covering this field is #41, "Art Education."

**Teaching Major:** ..... 54

- #FA 107 Art History Survey I (satisfies general education requirement IV.4) ..... 3
- #FA 108 Art History Survey II (satisfies general education requirement IV.4) ..... 3
- #FA 122 Two-Dimensional Design (satisfies general education requirement IV.4) ..... 3
- #FA 123 Drawing I (satisfies general education requirement IV.4) ..... 3
- FA 124 Drawing II ..... 3
- FA 210 Life Drawing ..... 3
- FA 215 History of 19th Century Art ..... 3
- FA 216 History of 20th Century Art ..... 3
- FA 231 Three-Dimensional Design ..... 3

Twenty-seven credit hours from the following list of courses:

- FA 201 Introduction to Graphic Design I (3)
- FA 235 Textiles (3)
- FA 304 Beginning Photographic Imagery (3)
- FA 305 Printmaking (3)
- FA 307 Ceramics (3)
- FA 310 Sculpture (3)
- FA 313 Painting (3)
- FA 314 Watercolor I (3)
- FA 320 Jewelry (3)
- FA 432 Drawing III (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/coa/art/ugrad/major/arted\\_t.html](http://www.emich.edu/public/catalogs/current/afac/colleges/coa/art/ugrad/major/arted_t.html).

*#Advising note:* 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.

## Art Major

**ISIS major code: AR02**

Students may also elect the following 30-credit-hour major.

Teacher certification in art is not obtainable using this major.

**Required courses:** ..... 18

- #FA 107 Art History Survey I (satisfies general education requirement IV.4) ..... 3
- #FA 108 Art History Survey II (satisfies general education requirement IV.4) ..... 3
- #FA 122 Two-Dimensional Design (satisfies general education requirement IV.4) ..... 3
- #FA 123 Drawing I (satisfies general education requirement IV.4) ..... 3
- FA 124 Drawing II ..... 3
- FA 231 Three-Dimensional Design ..... 3

**Free electives:** ..... 12

Choose 12 credits from art studio and/or art history courses in consultation with an art adviser. Nine out of 12 credits must be in advanced courses, 300 level or above.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/coa/art/ugrad/major/art.html](http://www.emich.edu/public/catalogs/current/afac/colleges/coa/art/ugrad/major/art.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

## Art History Major

**ISIS major code: AR03**

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.

Students taking the art history major should note that one year of college credit in a foreign language is required for the B.A. degree. Students preparing for graduate study are strongly advised to pursue courses in French and German. 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.

**Required courses:** ..... 18

- #FA 107 Art History Survey I (satisfies general education requirement IV.4) ..... 3
- #FA 108 Art History Survey II (satisfies general education requirement IV.4) ..... 3
- #FA 122 Two-Dimensional Design (satisfies general education requirement IV.4) ..... 3
- FA 215 History of 19th Century Art ..... 3
- FA 216 History of 20th Century Art ..... 3
- FA 428 Seminar in 20th Century Art ..... 3

**Electives:** ..... 12

- Pre-Renaissance Art (choose 1): ..... 3
  - FA 340 History of Classical Art (3)
  - FA 426 Medieval Art History (3)
- Renaissance/Baroque Art (choose 1): ..... 3
  - FA 341 History of Renaissance Art (3)
  - FA 427 Baroque Art (3)
- Nonwestern or Women's Art (choose 1): ..... 3
  - FA 421 History of Oriental Art (3)
  - FA 422 Chinese and Japanese Art History (3)
  - FA 425 Arts of Africa (3)
  - FA 430 Meso-American Art (3)
  - FA 436 Women in Art (3)

- Free elective (choose 1): ..... 3
  - \*FA 151 Reason and Revolution (3)
  - FA 335 American Painting and Sculpture Prior to World War II (3)
  - FA 429 History of American Architecture (3)
  - FA 440 Art Since 1945 (3)
  - FA 497/498/499 Independent Study (1/2/3)
  - Any upper-level art history course not taken to fulfill another requirement\*

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

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/art/ugrad/major/arthist.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/art/ugrad/major/arthist.html).

**Total:** ..... 30 hours

#Advising note: 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.

## Art Minor

**ISIS minor code: AR01**

- Required courses:** ..... 9
  - #FA 122 Two-Dimensional Design (satisfies general education requirement IV.4) ..... 3
  - #FA 123 Drawing I (satisfies general education requirement IV.4) ..... 3
  - Elect one art history course (FA 108 Art History Survey II suggested) ..... 3

**Electives:** ..... 12  
 Elect 12 additional hours in studio art or art history, of which at least six hours must be in advanced courses numbered 300 or above.

- #FA 100 Art Appreciation (satisfies general education requirement IV.4), #FA 101 Introduction to Art (satisfies general education requirement IV.4), #FA 165 Graphic Design for Non-majors (satisfies general education requirement IV.4), #FA 166 Ceramics for Non-majors (satisfies general education requirement IV.4), #FA 167 Jewelry for Non-majors (satisfies general education requirement IV.4) may be used as electives.

**Total:** ..... 21 hours

#Advising note: 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.

## Art History Minor

**ISIS minor code: AR02**

Students with an art major who elect the art history minor must replace FA 107 Art History Survey I, #FA 108 Art History Survey II (satisfies general education requirement IV.4), FA 215 History of 19th Century Art, FA 216 History of 20th Century Art on the major with studio courses.

- Required courses:** ..... 15
  - #FA 107 Art History Survey I (satisfies general education requirement IV.4) ..... 3
  - #FA 108 Art History Survey II (satisfies general education requirement IV.4) ..... 3

- FA 215 History of 19th Century Art ..... 3
- FA 216 History of 20th Century Art ..... 3
- FA 428 Seminar in 20th Century Art ..... 3

**Restricted electives:** ..... 6

Choose six credits from art history courses in consultation with art history minor advising coordinators.

**Total:** ..... 21 hours

#Advising note: 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.

## Art Minor

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

**ISIS minor code: AR33**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in art, certification code "LX." The certification test covering this field is #41, "Art Education."

**Required courses:** ..... 16

- #FA 122 Two-Dimensional Design (satisfies general education requirement IV.4) ..... 3
- #FA 123 Drawing I (satisfies general education requirement IV.4) ..... 3
- FA 231 Three-Dimensional Design ..... 3
- One art history course (FA 108 suggested) ..... 3
- Teaching methods ..... 4

### Secondary Certification

- FA 317 Teaching of Art (2)
- \*FA 416 Art Methods and Materials (2)

### Elementary Certification

- \*\*FA 300 Art Integration for the Elementary Teacher (4)

**Restricted electives:** ..... 9

Choose nine hours of electives in studio art and/or art history from the list below. At least six hours must be in courses numbered 300 or higher.

- #FA 107 Art History Survey I (satisfies general education requirement IV.4) (3)
- FA 124 Drawing II (3)
- FA 201 Introduction to Graphic Design I (3)
- FA 235 Textiles (3)
- FA 304 Beginning Photographic Imagery (3)
- FA 305 Printmaking (3)
- FA 307 Ceramics (3)
- FA 310 Sculpture (3)
- FA 313 Painting (3)
- FA 314 Watercolor I (3)
- FA 320 Jewelry (3)

**Total:** ..... 25 hours

#Advising note: 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.

\*Prereq: Admission to the teacher education program.

\*\*Prereq: Admission to the teacher education program. Satisfies a requirement in professional studies for the elementary program.

## Art Courses

- FA 100 Art Appreciation** 3 hrs  
The aim is to acquaint students with art philosophies, their elements, principles, and values. *Non-art majors or minors only.*
- FA 101 Introduction to Art** 3 hrs  
Studio and lecture course designed to develop seeing and understanding of the formal and cultural aspects of the visual arts. Guided attendance at selected exhibitions on an optional basis may be provided. *Non-art majors only.*
- FA 107 Art History Survey I** 3 hrs  
A survey of the development of the visual arts from cave art to the early Renaissance.
- FA 108 Art History Survey II** 3 hrs  
A continuation of Art History Survey I from the Renaissance through modern times.
- FA 122 Two-Dimensional Design** 3 hrs  
A foundation course dealing with an analytical approach to the study of the elements of design: color, line, shape, value, pattern, texture and form.
- FA 123 Drawing I** 3 hrs  
A beginning drawing course for students who plan to specialize in art. A variety of media and approaches help the student to achieve the control necessary in drawing. Individual problems are assigned and group criticism is frequent.  
*Prereq: Art major or minor only.*
- FA 124 Drawing II** 3 hrs  
Emphasis is on study of composition as an extension of the principles explored in Drawing I. Imaginative organization is stressed. Extensive experimentation with various media. Subjects such as the human figure are introduced as drawing problems.  
*Prereq: FA 123.*
- FA 151 Reason and Revolution** 3 hrs  
An examination of the transition in political history, philosophy, art, literature, and music from Puritan England and Louis XIV's France to Napoleon. Team taught by members of the Art and History departments. This course satisfies one art or one history requirement. *Note: See Honors Humanities Courses, page 30.*
- FA 165 Graphic Design for Non-majors** 3 hrs  
Introduction to typography and illustration. Problems will explore fundamental design and basic production considerations and the development of a professional design thought process.
- FA 166 Ceramics for Non-majors** 3 hrs  
A hands-on approach to provide students with the opportunity to develop skills and aesthetic understanding in forming, glazing and kiln stacking. The emphasis in this beginning course is on handbuilding forms; however, the use of the potter's wheel will be introduced the latter part of the semester.
- FA 167 Jewelry for Non-majors** 3 hrs  
A hands-on approach to provide students with the opportunity to develop artistic and technical skills with metal and other jewelry materials.
- FA 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- FA 201 Introduction to Graphic Design I** 3 hrs  
Projects examine two-dimensional typographic space; language sequence and information hierarchy; type families and their structure; typographic aesthetic; typographic history. Introduces appropriate tools.  
*Prereq: FA 122, FA 123, and one art history course*
- FA 205 Introduction to Graphic Design II** 3 hrs  
Projects examine type methodology; complex typographic systems; rhetorical devices; word-image structures; typographic history and theory. Introduces appropriate tools.  
*Prereq: FA 201.*
- FA 210 Life Drawing** 3 hrs  
Study of the human form through drawing. Primarily, nude models are used for subject matter. Various media are explored in search of the figurative element.  
*Prereq: FA 123 and FA 124, or department permission.*
- FA 215 History of 19th Century Art** 3 hrs  
Begins with a survey of European art in the late 18th century as the beginning of the modern period, and concludes with Post-Impressionism at the end of the 19th century.  
*Prereq: FA 107 and FA 108.*
- FA 216 History of 20th Century Art** 3 hrs  
A survey of the visual arts of the 20th century, from Post-Impressionism through the latest contemporary developments.  
*Prereq: FA 215 or department permission.*
- FA 231 Three-Dimensional Design** 3 hrs  
Basic study of three-dimensional structures and systems.
- FA 232 Representational Drawing** 3 hrs  
A course in analytical drawing emphasizing the use of volume, light, and structure in the construction of a variety of representationally illusionistic objects and environments.  
*Prereq: FA 124.*
- FA 235 Textiles** 3 hrs  
An introductory textiles class dealing with concepts of design as they relate to fiber structures and fabric processes.  
*Prereq: FA 122 and FA 123.*
- FA 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- FA 300 Art Integration for the Elementary Teacher** 4 hrs  
Understanding, appreciation, and awareness of art in its varied contemporary and multicultural contexts. Emphasis on three main areas: a) appreciation and understanding of the subject; b) art concepts and processes, aesthetic education, and their relationship to general education; and c) integration of art into the general classroom procedures to enhance learning. *Non-art majors only.*
- FA 302 Intermediate Graphic Design I** 3 hrs  
Deals intensively with conceptual and technical issues; explores topics relevant to audience demographic; presents theories, philosophies, aesthetics and techniques related to mass-audience communication. Introduces appropriate methodologies.  
*Prereq: FA 205.*
- FA 303 Intermediate Graphic Design II** 3 hrs  
Course analyzes symbol codes as learned and interpreted messages. Projects explore audience; context; sequence; and theories, philosophies, aesthetics, techniques and cultural references in symbol language message building. Introduces appropriate methodologies.  
*Prereq: FA 205.*
- FA 304 Beginning Photographic Imagery** 3 hrs  
Introduction to photography as an art form. Basic camera and darkroom techniques demonstrated, with emphasis on exhibition printing. Student must furnish own camera equipment.  
*Prereq: FA 122 and FA 123.*

- FA 305 Printmaking** 3 hrs  
Acquaintance with graphic techniques; woodcut and silkscreen.  
*Prereq: FA 210. Art majors only.*
- FA 306 Printmaking** 3 hrs  
Advanced graphic techniques with emphasis on development of individual style through experimentation with etching and processes.  
*Prereq: FA 305. Art majors only.*
- FA 307 Ceramics** 3 hrs  
Basic ceramics, including wheel throwing and handbuilding techniques, compounding earthenware and stoneware clay bodies, formulating glazes, firing electric and gas kilns.  
*Prereq: FA 231 or department permission.*
- FA 308 Ceramics** 3 hrs  
Advanced ceramic techniques, emphasis on personal expression, compounding of individual clay bodies and glazes, loading and firing of kilns.  
*Prereq: FA 307. Art majors only.*
- FA 310 Sculpture** 3 hrs  
Exploratory experiences in volume and space; the use of clay, stone, wood, metal, etc.  
*Prereq: FA 231. Art majors only.*
- FA 311 Sculpture** 3 hrs  
Continuing experiences in volume and space; further development of skills with sculpture materials and concepts.  
*Prereq: FA 310. Art majors only.*
- FA 313 Painting** 3 hrs  
Painting problems; development of technique and concepts through experimentation with painting media.  
*Prereq: FA 122 and FA 124. Art majors only.*
- FA 314 Watercolor I** 3 hrs  
Intensive exploration of watercolor techniques with emphasis on developing individuality and self-expression related to the medium.  
*Prereq: FA 122 and FA 124. Art majors only.*
- FA 316 Life Drawing** 3 hrs  
Advanced study problems; the human form as composition and design; varied media.  
*Prereq: FA 210. Art majors only.*
- FA 317 Teaching of Art** 2 hrs  
Focuses on discipline-based art education and will include library research, readings, writings, and discussions of current events aided by presentations of guest speakers. Final requirement: the development of a written personal philosophy pertaining to the teaching of art and the formulation of a general curriculum. Not open to students on academic probation.  
*Prereq: Junior standing.*
- FA 320 Jewelry** 3 hrs  
Design and creation of jewelry by fabricating, casting, lapidary, stone setting, and combination of metal and wood. Emphasis on the aesthetic aspect of decorative art objects.  
*Prereq: FA 231 or department permission. Art majors only.*
- FA 321 Jewelry** 3 hrs  
Processes and techniques applied toward a professional development in jewelry design. Advanced processes, casting, and setting of precious stones.  
*Prereq: FA 320 or equivalent.*
- FA 323 Intermediate Photographic Imagery** 3 hrs  
Advanced black and white techniques and alternative processes are demonstrated. Development of personal vision is realized through individual projects and discussion.  
*Prereq: FA 304. Art major or department permission.*
- FA 324 Design and Development of Public Works of Art** 3 hrs  
An experimental studio course in which students and instructors design, plan, and execute urban environmental murals, sculpture, parks and malls.  
*Prereq: Department permission.*
- FA 335 American Painting and Sculpture Prior to World War II** 3 hrs  
A survey of American art, including European influences and the evolution of native American characteristics.  
*Prereq: FA 107 and FA 108, or department permission.*
- FA 340 History of Classical Art** 3 hrs  
A study of the art and architecture of the classical civilization of Greece and Rome.  
*Prereq: FA 107 or department permission.*
- FA 341 History of Renaissance Art** 3 hrs  
A history of art from the Proto-Renaissance (about 1250 A.D.) through the period of mannerism (1600).  
*Prereq: FA 107 or FA 108.*
- FA 346 Image Making I** 3 hrs  
Image making as it applies to the materials and processes of communicating specific visual concepts. Introduces a wide variety of materials and imaging methods.  
*Prereq: FA 205.*
- FA 348 Intermediate Graphic Design Workshop** 3 hrs  
Practicum dealing with various aspects of visual communication.  
*Prereq: FA 302 and FA 303.*
- FA 355 Textiles** 3 hrs  
An intermediate textiles class dealing with concepts and design as they relate to fiber structures, created either on or off the loom.  
*Prereq: FA 235. Art majors only.*
- FA 356 Textiles** 3 hrs  
An intermediate textiles class dealing with concepts and design as they relate to basic fabric processes of surface decoration and manipulation.  
*Prereq: FA 235. Art majors only.*
- FA 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- FA 387 Cooperative Education in Art** 3 hrs  
Employment in a graphic design firm, studio, or agency with an opportunity for practical design experience. Placement approval required by graphic design area.  
*Prereq: Department permission.*
- FA 405 Printmaking** 3 hrs  
An advanced laboratory course designed for art majors specializing in graphics. Individual assignments in creative use of the more fundamental techniques learned in previous courses.  
*Prereq: FA 306. Art majors only.*
- FA 406 Printmaking** 3 hrs  
An advanced laboratory course for art majors taking their sequence in graphics. Projects could include lithography, etching, and aquatint processes, plus individual assignments.  
*Prereq: FA 405. Art majors only.*



- FA 407 Ceramics** 3 hrs  
Intensive work for art majors specializing in ceramics with an emphasis on larger-scaled, increasingly complex techniques and forms. Historical and contemporary works examined.  
*Prereq: FA 308. Art majors only.*
- FA 408 Ceramics** 3 hrs  
Summation of the undergraduate ceramics program; emphasis on individual style, production techniques, studio management and exhibition programs.  
*Prereq: FA 407. Art majors only.*
- FA 409 Advanced Photographic Imagery** 3 hrs  
The contextual development of personal vision is emphasized through discussion of the student's work in relationship to established photographers' work.  
*Prereq: FA 304 and FA 323.*
- FA 410 Metal Casting Techniques** 3 hrs  
An advanced sculpture course covering all aspects of the lost wax casting process. Includes information on other metal casting processes and on construction and operation of an inexpensive sculpture foundry.  
*Prereq: FA 310 or department permission.*
- FA 411 Sculpture** 3 hrs  
Advanced sculpture problems, including steel and open form construction; intensive study of contemporary methods and techniques of sculpture.  
*Prereq: FA 311 or department permission. Art majors only.*
- FA 412 Sculpture** 3 hrs  
Advanced sculpture problems; development of individual style in three-dimensional form.  
*Prereq: FA 411. Art majors only.*
- FA 413 Painting** 3 hrs  
Further development of painting skills and aesthetic understanding of the two-dimensional surface complex. Emphasis on development of individual style.  
*Prereq: FA 313. Art majors only.*
- FA 414 Watercolor II** 3 hrs  
Further development of watercolor skills and aesthetic understanding of the two-dimensional surface complex. Emphasis on development of individual style.  
*Prereq: FA 314. Art majors only.*
- FA 416 Art Methods and Materials** 2 hrs  
Designed to prepare students for their role in the classroom from the inception of an idea to the development of a unit of study. Planning, revising, and presenting specific units which incorporate the four disciplines. Not open to students on academic probation.  
*Prereq: FA 317 and junior standing.*
- FA 419 Life Drawing** 3 hrs  
The study of the human form as part of the development of a personal style in art.  
*Prereq: FA 316. Art majors only.*
- FA 421 History of Oriental Art** 3 hrs  
A survey of the art of the Far East, with significant examples chosen from India, China and Japan; investigation of the influences forming their styles.
- FA 422 Chinese and Japanese Art History** 3 hrs  
A detailed study of the major figure and landscape painters of China and Japan along with the ceramic, jade and bronze traditions.  
*Prereq: FA 107 or FA 108 or FA 421 or department permission.*
- FA 423 Watercolor III** 3 hrs  
Further development of individual style in watercolor.  
*Prereq: FA 414. Art majors only.*
- FA 424 Watercolor IV** 3 hrs  
Further development of individual style in watercolor.  
*Prereq: FA 423. Art majors only.*
- FA 425 Arts of Africa** 3 hrs  
Examines the visual arts of sub-Saharan Africa. Analyzes and investigates the content, materials, techniques, and aesthetics of traditional African art within its cultural context. Includes the integration of function and ritual, as evidenced in the tribal objects and artifacts.  
*Prereq: Junior or senior status, or department permission.*
- FA 426 Medieval Art History** 3 hrs  
The development of medieval art from the Early Christian through Gothic periods.  
*Prereq: FA 107 or FA 108 or department permission.*
- FA 427 Baroque Art** 3 hrs  
Principal developments in Italian and northern art of the 17th century. Emphasis on major themes and aesthetic problems.  
*Prereq: FA 107 or FA 108 or department permission.*
- FA 428 Seminar in 20th Century Art** 3 hrs  
Readings, reports, and group discussions on 20th century art. Topics may vary.  
*Prereq: FA 216 or art major.*
- FA 429 History of American Architecture** 3 hrs  
Exploration of styles and techniques in American architecture from the colonial period to the present, with special emphasis on the sources in foreign traditions. Major figures, including Thomas Jefferson, Louis Sullivan, Frank Lloyd Wright, Eero Saarinen, and major stylistic trends, such as Greek Revival and the International Style, will be traced back through their origins and development.  
*Prereq: FA 107 or FA 108 or department permission.*
- FA 430 Meso-American Art** 3 hrs  
A survey of the art of Meso-America, the civilization that existed in Mexico and Central America from about 1500 B.C.E. until the coming of Cortés in 1519. The major emphasis of the course will be on urban planning architecture and monumental sculpture. Significant attention will also be devoted to painting, ceramics, small-scale sculpture, textiles and jewelry.  
*Prereq: Junior or senior standing and department permission.*
- FA 432 Drawing III** 3 hrs  
Drawing as expressive composition. Integration of the techniques of previous courses. Development of individual directions. Includes a variety of media and the study of master drawings.  
*Prereq: FA 210. Art majors only.*
- FA 436 Women in Art** 3 hrs  
A survey of the contributions of female artists in the history of art. Discussions will include the history of women as patrons of the arts and the uses of the female image in art.  
*Prereq: FA 108 or department permission.*
- FA 439 Life Drawing** 3 hrs  
The study of the human form as part of the development of a personal style of art.  
*Prereq: FA 419. Art majors only.*
- FA 440 Art Since 1945** 3 hrs  
A study of contemporary art from 1945 to the present with an intensive concentration on recent developments in art. A continuation of FA 216.  
*Prereq: FA 216.*

- FA 442 Jewelry** 3 hrs  
Advanced problems such as raising metal into hollow forms, cutting and polishing of gem stones, gem identification, and advanced metal joining and forming processes.  
*Prereq: FA 321. Art majors only.*
- FA 443 Jewelry** 3 hrs  
Individual advanced problems in jewelry and metalworking.  
*Prereq: FA 442. Art majors only.*
- FA 449 Photography Portfolio** 3 hrs  
Development of a unified body of work representing the undergraduate photographic experience and culminating in a photographic project.  
*Prereq: FA 409.*
- FA 455 Textiles** 3 hrs  
Advanced problems in fiber structure and fabric processes. Emphasis on innovative development of images.  
*Prereq: FA 355 or FA 356. Art majors only.*
- FA 456 Color, Dye, and Fiber** 3 hrs  
A study of systematic dye testing via lectures and lab work; emphasis on understanding color in the textile medium.  
*Prereq: FA 235, or department permission*
- FA 460 Advanced Graphic Design** 3 hrs  
Advanced work in visual communications; students are exposed to theories, philosophies, aesthetics, techniques, and experiences used in complex visual communication environments. (Course may be repeated twice for credit.)  
*Prereq: FA 302 or FA 303.*
- FA 462 Image Making II** 3 hrs  
Image making as applied to advanced communication concepts. Students are exposed to theories, philosophies, aesthetics, techniques, and experiences used in visual message building.  
*Prereq: FA 346, and FA 302 or FA 303.*
- FA 464 Advanced Graphic Design Workshop** 3 hrs  
Special problems with various aspects of visual communication of particular interest to advanced visual communication students.  
*Prereq: FA 302 and FA 303*
- FA 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- FA 480 Painting** 3 hrs  
Further development of individual painting style.  
*Prereq: FA 413. Art majors only.*
- FA 481 Painting** 3 hrs  
Further development of individual painting style.  
*Prereq: FA 480. Art majors only.*
- FA 487 Cooperative Education in Art** 3 hrs  
Continuation of FA 387.  
*Prereq: FA 387. Approval by graphic design area.*
- FA 497/498/499 Independent Study** 1/2/3 hrs  
Advanced study on an individual basis in areas in which the department does not have regular course work.  
*Prereq: Department permission.*

## Biology

**Web site:** [www.emich.edu/public/biology/bioweb.htm](http://www.emich.edu/public/biology/bioweb.htm)

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**Professors:** Catherine E. Bach, Howard D. Booth, Jamin Eisenbach, Gary L. Hannan, Dennis C. Jackson, Allen Kurta, Robert K. Neely, Douglas Y. Shapiro, James L. VandenBosch, Glenn K. Walker  
**Associate Professors:** John A. Novak, Peter N. Reinthal, Robert S. Winning, Henry Zot  
**Assistant Professors:** Michael G. Angell, Peter A. Bednekoff, Tamara L. Greco, Wade A. Grow, David H. Kass, Peggy Liggitt

The Biology Department offers a major in biology as well as providing programs in preforestry, premedicine (allopathic and osteopathic), preoptometry and prepodiatry. In addition, there is an adviser for veterinary medicine.

Modern laboratories for course work and research under personal supervision of faculty are located in the Mark Jefferson building and the Terrestrial and Aquatic Research Facility. The adjacent Loesell Field Laboratory, nearby Huron River and Ford Lake are available for field course work and research.

Field-oriented courses are taught at EMU's Kresge Environmental Education Center in Lapeer County and at the Conservation Training School at Higgins Lake under joint auspices of EMU, Central Michigan University, Western Michigan University, the University of Michigan and the Michigan Department of Conservation.

Registration for any courses offered by any of the participating universities at Higgins Lake is handled by EMU's Office of Continuing Education. Courses are normally a week long during the summer and carry one or two hours of credit. Only one course can be elected at a time. Students must apply in advance; enrollment is limited and acceptance is in order of application. Students desiring to receive credit from EMU and who indicate this on their application will be enrolled on EMU forms, eliminating the need for transcripts. Room and board are available. Information can be obtained from the Office of Continuing Education at [www.emuconted.org](http://www.emuconted.org).

Course work in tropical ecology is offered by the department when justified by demand and when arrangements can be made in a tropical area for laboratory facilities and living quarters for staff and students.

The department supports a student chapter of Beta Beta Beta, the national biological honorary society. All biology majors and minors are encouraged to participate in its activities.

### Degrees:

Bachelor of Science  
Bachelor of Arts

### Programs of Study

Academic Major in Biology:

#### Concentrations:

Ecosystem biology (aquatic and terrestrial)  
General biology  
Microbiology  
Physiology

Teaching Major in Biology

### Minors:

Biology  
Biology for secondary, K-12, and special education-secondary  
Botany  
Zoology  
Conservation and resource use

**Preprofessional programs:**

- Prechiropractic
- Preforestry
- Premedicine (allopathic and osteopathic)
- Preoptometry
- Prepodiatry

Departmental advising procedures are posted 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 through the Academic Advising Center (Pierce Hall) as soon as possible after their admission to the University.

To graduate with a major in biology, the student must meet with a biology faculty adviser to select one of the areas of concentration in the major. This meeting must take place as early as possible but no later than the end of the sophomore year. All transfer students must contact a biology faculty adviser during their first semester at EMU.

Biology majors who elect a botany or zoology minor must file an approved program of required/elective courses for the minor with their faculty adviser and undergraduate coordinator. Program changes will require prior written approval of the faculty adviser and undergraduate coordinator. Minors in either botany or zoology are not approved teaching minors for secondary teacher certification.

Conservation and resource use minor electives must be approved by the advising coordinator listed below. Substitutes on the approved program will count toward its completion only if approved by the coordinator.

**Advising Coordinators:**

- Undergraduate coordinator: Catherine E. Bach
- Conservation and resource use: Catherine E. Bach
- Ecosystem biology: Robert K. Neely
- Elementary science education: Peggy Liggit
- General biology: Catherine E. Bach
- Microbiology: James L. VandenBosch
- Physiology: Tamara L. Greco
- Preforestry: Gary L. Hannan
- Premedicine (allopathic and osteopathic), preoptometry, prepodiatry and prechiropractic: Michael G. Angell
- Preveterinary medicine: Howard D. Booth
- Secondary biology education: John A. Novak

Graduate study leads to a master of science degree in biology with students choosing a concentration in general biology, ecology and organismal biology, physiology, molecular and cellular biology or community college biology teaching. These programs are described in the graduate catalog.

**Biology Major****ISIS major code: BL01**

Majors should start with BIOL 110 Introductory Biology followed by BIOL 120 Introductory Biology in their freshman year. Majors without a strong high school biology preparation should take BIOL 105 Introductory Biology for Non-majors before electing BIOL 110. (BIOL 105 will not count toward the biology major or minor, although credit earned in this course will count toward the minimum of 124 hours required for graduation.)

**Chemistry Requirement:** The minimum requirements in chemistry for all biology majors are CHEM 121-CHEM 122-CHEM 123-CHEM 124 General Chemistry I-II with labs, and either of the following sequences: CHEM 270-CHEM 271 Organic Chemistry with lab and CHEM 451 Biochemistry I, or CHEM 371-CHEM 372-CHEM 373 Organic Chemistry I-II with laboratory. Students who plan to pursue graduate work in biology or are in a preprofessional program should select CHEM

371-CHEM 372-CHEM 373 Organic Chemistry I-II with lab. It is *highly recommended* that CHEM 451-CHEM 452-CHEM 453 Biochemistry I-II with lab also be selected by students who plan to pursue graduate work in biology.

**Physics Requirement:** The minimum requirements in physics for all biology majors are PHY 221 Mechanics, Sound, and Heat and PHY 222 Electricity and Light.

**Mathematics Requirement:** The minimum requirement in mathematics for all biology majors is MATH 120 Calculus I or MATH 170 Elementary Statistics I. It is strongly recommended that students who plan to pursue graduate work in biology take MATH 120 Calculus I and MATH 121 Calculus II, as well as MATH 170 Elementary Statistics I.

The following courses may NOT be counted toward a biology major or minor: BIOL 105 Introductory Biology for Non-majors, ESCI 302 Elementary School Science, ESCI 303 Science for the Elementary Teacher, BIOL 205 Field Biology, and BIOL 403 Methods and Materials for Teaching Biology.

*Please note:* Beginning with the Fall of 2000, a new curriculum is expected for this degree. It is, therefore, imperative that students confirm their curriculum by referring to the current online catalog.

**\*Courses designated as botanical taxonomic field courses:**

- BOTN 354 Trees and Shrubs
- BOTN 450 Taxonomy and Ecology of Aquatic Vascular Plants
- BOTN 451 Freshwater Algae
- BOTN 453 Taxonomy and Ecology of Diatoms
- BOTN 455 Systematic Botany

**Courses designated as zoological taxonomic field courses:**

- ZOOL 300 Natural History of Invertebrates
- ZOOL 310 Natural History of Vertebrates
- ZOOL 421 Entomology
- ZOOL 422 Ichthyology
- ZOOL 425 Ornithology
- ZOOL 474 Herpetology
- ZOOL 480 Protozoology
- ZOOL 482 Aquatic Entomology
- ZOOL 485 Mammalogy

**Biology Major—General Biology Concentration****ISIS major code: BL0105**

Students entering preprofessional programs in chiropractic medicine, dentistry, allopathic medicine, osteopathic medicine, podiatry, veterinary medicine, or optometry; and students specializing in field biology, plant and animal taxonomy, cell biology, preforestry, or laboratory and museum research may select the general biology concentration as preparation for continuing in a professional or graduate school program.

Students who are uncertain about a concentration may prefer the flexibility of the general biology concentration, which allows a broad spectrum of biology courses to explore without precluding later specialization.

*Note:* Within the 32 credit hours in biology there MUST be at least seven hours in botany (may include microbiology) and at least seven hours in zoology. An experience at a biological station is recommended.

**Major in biology, general biology concentration: ..... 32 hours**  
**Required basic courses: ..... 21**

- #BIOL 110 Introductory Biology (satisfies general education requirement II.2 or II.3) ..... 5
- BIOL 120 Introductory Biology ..... 5
- BIOL 301 Genetics ..... 3
- BIOL 320 Introduction to Cell Physiology ..... 4
- BIOL 420 General Ecology ..... 4

<b>Biology electives:</b> .....	<b>11</b>
One taxonomic field course* (in either botany or zoology) .....	3
Choose eight credit hours in biology, botany, microbiology, or zoology <i>except</i> BIOL 105 Introductory Biology for Non-majors, BIOL 205 Field Biology, BIOL 207 Elements of Ecology, ZOO 326 Human Physiology, ESCI 302 Elementary School Science, ESCI 303 Science for the Elementary Teacher, and BIOL 403 Methods and Materials for Teaching Biology.	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/bio/ugrad/major/gen.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/bio/ugrad/major/gen.html).

*#Advising note:* 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.

## Biology Major—Ecosystem Biology Concentration (Aquatic and Terrestrial)

**ISIS major code: BL0104**

Honors courses requiring that students meet certain qualifications are available with this concentration. These are listed at the end of this concentration and can be explained by the advising coordinator. No minor is required with this major.

**Major in biology, ecosystem biology concentration** (aquatic and terrestrial): .....

**54 hours**

**Required biology courses:** .....

**14**

BIOL 320 Introduction to Cell Physiology .....	4
BIOL 420 General Ecology .....	4
A botany taxonomic field course* .....	3
A zoology taxonomic field course* .....	3

**Biology electives:** .....

**6**

Choose six credit hours from:

BIOL 410 Limnology (3)	
BIOL 412 Biogeography (3)	
BIOL 435 Wetland Ecosystems (3)	
BIOL 436 Terrestrial Ecosystems (3)	
BOTN 450 Taxonomy and Ecology of Aquatic Vascular Plants (3)	
ZOOL 439 Physiological Ecology (3)	
others with adviser approval	

Choose six credit hours in biology, botany, microbiology, or zoology *except* BIOL 105 Introductory Biology for Non-majors, BIOL 205 Field Biology, BIOL 207 Elements of Ecology, ZOO 326 Human Physiology, ESCI 302 Elementary School Science, ESCI 303 Science for the Elementary Teacher, and BIOL 403 Methods and Materials for Teaching Biology.

**Other required science courses:** .....

**34**

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
#GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) .....	4
GESC 324 Weather .....	3
#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) .....	4
PHY 222 Electricity and Light .....	4
One of (satisfies general education requirement I.5): .....	3
COSC 137 Introduction to FORTRAN Programming (3)	

COSC 138 Computer Science I (3)	
COSC 237 Computer Programming and Numeric Methods (3)	

Take one of the following sequences: .....

**8**

CHEM 270 Organic Chemistry (4)	
CHEM 271 Organic Chemistry Laboratory (1)	
CHEM 451 Biochemistry I (3)	

or

CHEM 371 Organic Chemistry I (3)	
CHEM 372 Organic Chemistry II (3)	
CHEM 373 Organic Chemistry Laboratory (2)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/bio/ugrad/major/eco.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/bio/ugrad/major/eco.html).

**Honors courses:**

BIOL 387/BIOL 487 Cooperative Education in Biology (3/3)	
BIOL 488 Honors Practicum in Ecosystem Biology (2)	
BIOL 497/498/499 Special Problems in Biology (1/2/3)	

*#Advising note:* 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.

## Biology Major—Microbiology Concentration

**ISIS major code: BL0101**

Students selecting this concentration will be prepared for an entry-level position in microbiology and for entry into a professional program in biotechnology, medicine (allopathic and osteopathic), dentistry, veterinary science, pharmacy or public health. It is a good second major for students in medical technology. This concentration requires a biochemistry minor.

This program of study meets the educational requirements established by the American Academy of Microbiology (AAM). Students who complete this program and then meet the additional experience requirements set by the academy are eligible to make formal application for the examinations to become a registered microbiologist RM (AAM).

**Major in biology, microbiology concentration:** .....

**29 hours**

**Required biology courses:** .....

**17**

MICR 329 General Microbiology .....	5
MICR 333 Principles of Immunology .....	3
MICR 335 Immunology and Serology Laboratory .....	2
MICR 444 Microbial Physiology .....	3
MICR 452 Advanced Microbiology .....	4

**Biology electives:** .....

**12**

Choose at least one course from each of the following:

*Group A—Advanced Genetics*

MICR 454 Molecular Biology of Bacteria and Viruses, *MICR 541 Microbial Genetics, *BIOL 542 Molecular Genetics	
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*Group B—Cellular/Molecular Biology*

MICR 340 Basic Virology, BIOL 461 Oncology, *BIOL 540 Cell Biology	
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*Group C—Medical Microbiology*

MICR 432 Clinical Microbiology, BOTN 446 Medical Mycology, ZOO 462 Parasitology	
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*Group D—Environmental/Field and Applied Microbiology*

BOTN 404 Mycology, BOTN 451 Freshwater Algae, BOTN 453 Taxonomy and Ecology of Diatoms, MICR 442 Microbial Ecology, MICR 445 Food Microbiology, ZOO 480 Protozoology, *BOTN 540 Plant Morphology of Algae and Fungi	
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Students are encouraged to take at least three credit hours in research and practical experience through the following courses: MICR



497/498/499 Special Problems (one/two/three credits); MICR 387/MICR 487 Cooperative Education in Microbiology (three credits each).

\*Qualified students may take graduate-level courses (listed in the graduate catalog) with approval of their adviser and the graduate school.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/bio/ugrad/major/micro.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/bio/ugrad/major/micro.html).

## Biology Major—Physiology Concentration

ISIS major code: BL0103

Students electing this concentration are strongly advised to take minors in botany or zoology, and chemistry or biochemistry. Students are prepared for a variety of technical laboratory and clinical positions as well as entry into a professional program such as medicine (allopathic and osteopathic) or dentistry. It is recommended that students consider continuing with graduate study to expand their career opportunities.

**Major in biology, physiology concentration:** ..... 35 hours  
**Required courses:** ..... 20

BIOL 320 Introduction to Cell Physiology ..... 4

#CHEM 121-CHEM 122 General Chemistry I with lab  
(satisfies general education requirement II.1 or II.3) ... 4

CHEM 123 General Chemistry II ..... 3

CHEM 124 General Chemistry II Laboratory ..... 1

CHEM 451 Biochemistry I ..... 3

Take either: ..... 5

CHEM 270 Organic Chemistry (4)

CHEM 271 Organic Chemistry Laboratory (1)

or

CHEM 371 Organic Chemistry I (3)

CHEM 372 Organic Chemistry II (3)

CHEM 373 Organic Chemistry Laboratory (2)

**Restricted electives:** ..... 9

Choose nine credits from the following:

BOTN 442 Plant Physiology, MICR 444 Microbial Physiology, ZOOLOG 427 Vertebrate Physiology, ZOOLOG 437 Invertebrate Physiology, ZOOLOG 439 Physiological Ecology.

**Electives:** ..... 6

Choose six credits from the following:

BIOL 413 Animal and Plant Preservation Techniques, BIOL 415 Basic Histological Techniques, BIOL 416 Biological Instrumentation: Theory and Practice, BIOL 420 General Ecology, BIOL 480 Radiation Biology, \*BIOL 540 Cell Biology

BOTN 412 Plant Anatomy

MICR 329 General Microbiology

ZOOLOG 317 Human Gross Anatomy, ZOOLOG 323 Animal

Embryology, ZOOLOG 431 Comparative Anatomy of

Vertebrates, ZOOLOG 404 Mammalian Histology, ZOOLOG

417 Neuroanatomy

\*Qualified students may take graduate-level courses (listed in the graduate catalog) with approval of their adviser and the graduate school.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/bio/ugrad/major/phys.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/bio/ugrad/major/phys.html).

#Advising note: 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.

## Biology Major

### Secondary Teacher Certification

ISIS major code: BL31

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 certification test covering this field is #17, "Biology."

Teaching Major: ..... 30

Hours must be distributed to include at least seven hours in botany (may include microbiology) and seven hours in zoology.

#BIOL 110 Introductory Biology (satisfies general education requirement II.2 or II.3) ..... 5

BIOL 120 Introductory Biology ..... 5

BIOL 301 Genetics ..... 3

BIOL 320 Introduction to Cell Physiology ..... 4

BIOL 420 General Ecology ..... 4

One of: ..... 3

ZOOLOG 300 Natural History of Invertebrates (3)

ZOOLOG 310 Natural History of Vertebrates (3)

BOTN 354 Trees and Shrubs (3)

ZOOLOG 421 Entomology (3)

ZOOLOG 422 Ichthyology (3)

ZOOLOG 425 Ornithology (3)

BOTN 450 Taxonomy and Ecology of Aquatic Vascular Plants (3)

BOTN 451 Freshwater Algae (3)

BOTN 453 Taxonomy and Ecology of Diatoms (3)

BOTN 455 Systematic Botany (3)

ZOOLOG 474 Herpetology (3)

ZOOLOG 480 Protozoology (3)

ZOOLOG 482 Aquatic Entomology (3)

ZOOLOG 485 Mammalogy (3)

Six credits in biology, botany, microbiology or zoology except

BIOL 105, BIOL 205, BIOL 207, ZOOLOG 326, ESCI 302,

ESCI 303 and BIOL 403 ..... 6

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/bio/ugrad/major/bio\\_t.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/bio/ugrad/major/bio_t.html).

#Advising note: 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.

## Biology Minor

ISIS minor code: BL01

Students minoring in biology are strongly advised to take #CHEM 117-#CHEM 118 Fundamentals of Chemistry (satisfies general education requirement II.1 or II.3) or #CHEM 121-#CHEM 122-CHEM 123-CHEM 124 General Chemistry I-II with labs (satisfies general education requirement II.1 or II.3).

Students with no previous biology in high school must follow the directives stated under the biology major by starting with #BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3).

<b>Required courses:</b> .....	<b>13</b>
#BIOL 110 Introductory Biology (satisfies general education requirement II.2 or II.3) .....	5
BIOL 120 Introductory Biology .....	5
BIOL 301 Genetics .....	3

**Electives\*:** ..... **7**

Choose seven credits from the following: biology, botany, microbiology or zoology except ESCI 302 Elementary School Science, ESCI 303 Science for the Elementary Teacher, BIOL 105 Introductory Biology for Non-majors, BIOL 205 Field Biology, and BIOL 403 Methods and Materials for Teaching Biology. Either BIOL 204 The Biology of Cancer or BIOL 239 Biology of Aging may be used in this minor, but not both courses.

**Total:** ..... **20 hours**

*\*No more than two hours of electives toward the minor may be taken in any combination of BIOL/BOTN/ZOOL 497/498/499 Independent Study courses. BIOL/BOTN/MICR/ZOOL 387/MICR/ZOOL487 Cooperative Education courses will not count on this minor. A minimum of three elective hours MUST be selected from 300-level or higher courses.*

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Botany Minor

**ISIS minor code: BL02**

Open only to students majoring in biology. 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.

This minor is not to be considered as a teaching minor for prospective elementary or secondary teachers. Prospective teachers who wish to elect this minor must complete a second minor outside of the Biology Department to satisfy the current requirements for teacher certification.

**Total:** ..... **20 hours**

## Conservation and Resource Use Minor

**ISIS minor code: BL04**

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

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 urged to take PLSC 202 State and Local Government.

**Required courses:** ..... **13**

*#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) or #GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) .....	4
**BIOL 207 Elements of Ecology .....	2
BIOL 224 Principles of Conservation .....	4
***ECON 200 The American Economy .....	3

**Electives:** ..... **11**

Choose 11 credits from the following (approved by the advising coordinator):

BOTN 215 Economic Botany, #BOTN 221 General Botany (satisfies general education requirement II.2 or II.3), #ZOO 222 General Zoology (satisfies general education requirement II.2 or II.3), BIOL 410 Limnology, BIOL 412 Biogeography, BIOL 436 Terrestrial Ecosystems, and any taxonomic field course.

#CHEM 115 Chemistry and Society (satisfies general education requirement II.1 or II.3), CHEM 415 Environmental Chemistry

#ECON 201 Principles of Economics I (satisfies general education requirement III.3), #ECON 202 Principles of Economics II (if #ECON 201 is taken, satisfies general education requirement III.4), ECON 336 Economics of Environment and Natural Resources, ECON 337 Energy Economics and Policies

GESC 114 National Parks and Monuments, GESC 208 Natural Environmental Hazards, GPLN 215 Introduction to Urban and Regional Planning, GEOG 235 Economic Geography, GEOL 229 Rocks of Michigan, GESC 305 Aerial Photograph Interpretation, GEOG 310 Energy Awareness, GEOG 320 Geography of the United States and Canada, GESC 320 The Oceans, GESC 324 Weather, GESC 327 Soil Science, GEOG 332 Urban Geography, GEOG 361 Geography of Population, GESC 424 Climatology, GEOL 448 Hydrogeology, GESC 495/GPLN 495 Environmental Assessment and Planning

SOCL 306 The Urban Community, SOCL 334 Population

**Total:** ..... **24 hours**

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

*\*Students required to take GESC 108 Earth Science 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.*

*\*\*The prerequisite for BIOL 207 Elements of Ecology is #BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3). Students planning to take this minor should elect BIOL 105 for general education credit in the freshman year. Biology majors minoring in conservation will take BIOL 420 General Ecology on the major and substitute additional approved electives on the minor.*

*\*\*\*Students who prefer to elect ECON 201-ECON 202 Principles of Economics I-II to satisfy general education requirements may substitute ECON 201 for ECON 200 The American Economy and count ECON 202 as an elective on the minor. Students who are required to take ECON 201-ECON 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 ECON 200.*

## Zoology Minor

**ISIS minor code: BL03**

Open only to students majoring in biology. 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.

This minor is not to be considered as a teaching minor for prospective elementary or secondary teachers. Prospective teachers who wish to elect this minor must complete a second minor outside of the Biology Department to satisfy the current requirements for teacher certification.

**Total:** ..... 20 hours

## Biology Minor

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

**ISIS minor code: BL35**

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 certification test covering this field is #17, "Biology."

#BIOL 110 Introductory Biology (satisfies general education requirement II.2 or II.3) .....	5
BIOL 120 Introductory Biology .....	5
BIOL 301 Genetics .....	3
Seven hours from biology, botany, microbiology or zoology except BIOL 105, ESCI 302, ESCI 303, BIOL 205, BIOL 403. Either BIOL 204 or BIOL 239 may be used, but not both. No more than two hours may be taken in any combination of BIOL/BOTN/ZOOL 497/498. BIOL/BOTN/MICR/ZOOL 387/BIOL/BOTN/MICR/ZOOL 487 will not count.	

*Strongly advised:* #CHEM 117-CHEM 118; or #CHEM 121-CHEM 122 and CHEM 123-CHEM 124.

An additional four cognate hours of science, other than biology, must be completed to meet NCA requirements (24 hours) for teaching this minor at the junior-senior high school level. However, BIOL 403 may be selected for these additional hours. Students with no previous biology in high school must start with BIOL 105, which does not count toward the minor.

**Total:** ..... 24 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Preforestry

**ISIS major code: BL03**

Forestry schools set their own requirements for admission. It is imperative that during the first year at EMU exact requirements be obtained from current catalogs of specific schools at which students seek to complete professional training. Students should initially follow the general biology program curriculum, which allows sufficient flexibility to accommodate admission requirements of professional schools. Students should consult with the preforestry adviser to establish the most appropriate program of courses.

The preforestry curriculum is designed for such diverse fields as conservation biology, wildlife management, resource policy, and fisheries biology, as well as forestry.

## Premedicine (Allopathic and Osteopathic), Preoptometry, Prepodiatry, and Prechiropractic

**Premedicine ISIS major code: BL04**

**Preoptometry and prepodiatry ISIS major code: BL05**

Students can complete course requirements at EMU for admission to optometry, podiatry, and chiropractic programs. For information on these programs, see the advising coordinator for premedical programs. The requirements are similar to those for allopathic and osteopathic medical schools as described below.

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

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

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

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

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

ENGL 121 English Composition .....	3
Elective in English language or literature .....	3
ZOOL 222 General Zoology .....	4
BIOL 301 Genetics .....	3
BIOL 320 Introduction to Cell Physiology .....	4
BOTN 221 General Botany .....	4
CHEM 121-CHEM 122 General Chemistry I with lab .....	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
CHEM 371 Organic Chemistry I .....	3
CHEM 372 Organic Chemistry II .....	3
CHEM 373 Organic Chemistry Laboratory .....	2
CHEM 451 Biochemistry I .....	3
PHY 221 Mechanics, Sound, and Heat .....	4
PHY 222 Electricity and Light .....	4
Sociology and psychology courses .....	8

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

### First Year—Premedicine

**First semester:** ..... 12-18

CHEM 121 General Chemistry I .....	3
CHEM 122 General Chemistry I Laboratory .....	1
BOTN 221 General Botany .....	4
*Mathematics .....	2-4
General education .....	2-6

<b>**Second semester:</b> .....	<b>13-19</b>
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
*Mathematics .....	2-4
ZOOL 222 General Zoology .....	4
General education .....	3-7

\*Students with one to two years of less than high-level algebra take MATH 105 College Algebra. Students with only one year of algebra take MATH 104 Intermediate Algebra, followed by MATH 105 College Algebra. Students without trigonometry take MATH 107 Plane Trigonometry.

Although students may need to take MATH 104 Intermediate Algebra, MATH 105 College Algebra, or MATH 107 Plane Trigonometry these courses do not satisfy general education requirements. Students must still complete a mathematics course from the list of approved mathematics courses; biology majors will satisfy both general education and biology major requirements by taking MATH 120 Calculus I.

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

### Biology Courses

#### **BIOL 105 Introductory Biology for Non-majors** 4 hrs

A study of the basic concepts of modern biology common to all organisms with an emphasis on human systems and issues. Designed for students who are not majoring or minoring in biology. The course consists of two one-hour lectures, one one-hour recitation and three hours of self-paced laboratory each week. *Not open to students with credit in BIOL 110 and/or BIOL 120. Does not count toward the major or minor.*

#### **BIOL 110 Introductory Biology** 5 hrs

The basic concepts of biology upon which students can begin to develop a conceptual framework of the discipline will be developed in this course and reinforced in upper-level courses. Cell structure and function, molecular biology, Mendelian and population genetics, evolutionary theory, and ecology will be covered in this first semester of a two-semester sequence. Inquiry-oriented laboratory exercises and inquiry-oriented methods will be emphasized in lecture and discussion sections. BIOL 110 is required for students taking a major or minor in biology. Course meets for three hours of lecture, one hour of discussion and three hours of laboratory each week.

*Prereq: BIOL 105 or high school biology.*

#### **BIOL 120 Introductory Biology** 5 hrs

The basic concepts of biology upon which students can begin to develop a conceptual framework of the discipline will be developed in this course and reinforced in upper-level courses. Evolutionary theory; ecology; 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. BIOL 120 is required for students taking a major or minor in biology. Course meets for three hours of lecture, one hour of discussion and three hours of laboratory each week.

*Prereq: BIOL 110.*

#### **BIOL 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

#### **BIOL 204 The Biology of Cancer** 2 hrs

Introduces the types, characteristics, putative causes and current treatments of cancer.

*Prereq: BIOL 105, or BIOL 110 and BIOL 120.*

#### **BIOL 205 Field Biology** 4 hrs

A lecture, laboratory and field course in the behavior, ecology, and broad classification of plants and animals, giving training in recognition of common plants and animals of Michigan. Gives background material to the non-specialist interested in outdoor life, and to the elementary school teacher. Not open to students having credit in BIOL 110 and/or BIOL 120 except by department permission. Does not count toward the biology major or biology minor.

#### **BIOL 207 Elements of Ecology** 2 hrs

The interactions of plants and animals with their physical and biological environment. Consideration is given to the way in which principles of ecology are applied in conservation practices. Lectures and readings are supplemented by field trips to locations of ecological interest in the area. *Prereq: BIOL 105 or equivalent. Does not count toward the major.*

#### **BIOL 224 Principles of Conservation** 4 hrs

Introduces the basic resources of water, soil, vegetation, animal life, land and space, land in its unaltered condition, minerals and human powers, and develops the principles by which they may be wisely utilized and conserved with major emphasis on the renewable resources.

#### **BIOL 232 Nature Interpretation** 3 hrs

Combines intensive field and museum work in natural history with practical training and experience in interpreting natural objects and settings to individuals and groups.

#### **BIOL 239 Biology of Aging** 2 hrs

The study of the aging process at the molecular, cellular, tissue and systems level of organization. Theories of aging will be considered.

*Prereq: BIOL 105 or equivalent.*

#### **BIOL 277/278/279 Special Topics** 1/2/3 hrs

An examination of topics in biology not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission.*

#### **BIOL 301 Genetics** 3 hrs

A lecture course emphasizing the basic principles of inheritance with their application to plants and animals.

*Prereq: BIOL 110 and BIOL 120.*

#### **BIOL 302 Genetics Laboratory** 2 hrs

A laboratory course designed to accompany or follow BIOL 301. Provides opportunity to work with organisms proved to be most beneficial in extending our understanding of genetic principles. Practice in gathering and analyzing data from living populations will be provided.

*Prereq: BIOL 301 (may be taken concurrently).*

#### **BIOL 320 Introduction to Cell Physiology** 4 hrs

A lecture and laboratory course in introductory physiology devoted to the study of physiological mechanisms common to all living organisms. Basic processes at the cellular level emphasized, rather than the applications of such processes to a particular organism. Organic chemistry with laboratory is highly recommended.

*Prereq: BIOL 110, BIOL 120 and CHEM 121-CHEM 124.*

#### **BIOL 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

#### **BIOL 387 Cooperative Education in Biology** 3 hrs

Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in biology or technology. The program consists of two work experiences



(BIOL 387 and BIOL 487) alternating with full-time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.

*Prereq: Junior standing.*

**BIOL 403 Methods and Materials for Teaching Biology** 3 hrs

A lecture-laboratory course providing knowledge, training and practice in the presentation of biological principles, analysis of texts, selection of course content, effective classroom methods, and preparation of classroom materials used in the teaching of biology. *Does not count toward major or minor.*

*Prereq: BIOL 110 and BIOL 120.*

**BIOL 410 Limnology** 3 hrs

A lecture, laboratory and field course dealing with physicochemical and biological interrelationships in standing waters.

*Prereq: BIOL 420 and one taxonomic field course, (BOTN 354, BOTN 450, BOTN 451, BOTN 453, BOTN 455, ZOOL 300, ZOOL 310, ZOOL 474, ZOOL 480 or ZOOL 485) or department permission.*

**BIOL 412 Biogeography** 3 hrs

A lecture course involving the descriptive and historical aspects of plant and animal distribution and the basic principles governing their natural distribution in both space and time.

*Prereq: BIOL 110 and BIOL 120, and one of the following: GESC 108 or GESC 202 or GEOL 160 or GEOL 161.*

**BIOL 413 Animal and Plant Preservation Techniques** 1 hr

A laboratory, lecture and demonstration mini-techniques course in the preservation of biological specimens: minute, whole animal slide mounts to large animal and plant techniques, such as freeze-drying, pressing, skeleton making, study-skins and plastic embedding.

*Prereq: Two college biology courses at the 100, 200 or 300 level.*

**BIOL 415 Basic Histological Techniques** 1 hr

A laboratory, lecture and demonstration mini-techniques course giving basic theory and practice in mammalian tissue slide preparation including dissection, fixation, dehydration, embedding, sectioning, affixing, and staining.

*Prereq: Two college biology courses at the 100-, 200- or 300-level.*

**BIOL 416 Biological Instrumentation: Theory and Practice** 1 hr

A lecture and laboratory course that covers testing, adjustments, operation and maintenance of scientific instruments and their uses in the biological area.

*Prereq: Two college biology courses at the 100, 200 or 300 level, or department permission.*

**BIOL 420 General Ecology** 4 hrs

A lecture, laboratory and field course introducing the concepts involved in the study of terrestrial and aquatic communities, their physical environment, and their integration into ecosystems. Emphasis on properties at the ecosystem, community and population levels.

*Prereq: BIOL 110 and BIOL 120.*

**BIOL 434 Advanced Immunohematology** 3 hrs

Principles and procedures used in the blood bank are studied and related to problem situations in the laboratory. *Not open to those with credit in CLSC 434.*

*Prereq: BIOL 307 and CLSC 335.*

**BIOL 435 Wetland Ecosystems** 3 hrs

Advanced field ecology course in the theory and methods of study of wetland ecosystems.

*Prereq: BIOL 420; one taxonomic field course (BOTN 354, BOTN 450, BOTN 451, BOTN 453, BOTN 455, ZOOL 300, ZOOL 310, ZOOL 474, ZOOL 480, ZOOL 482 or ZOOL 485); or department permission.*

**BIOL 436 Terrestrial Ecosystems** 3 hrs

Advanced field ecology course in the theory and methods of study of the structure and dynamics of terrestrial ecosystems.

*Prereq: BIOL 420; one taxonomic field course (BOTN 354, BOTN 450, BOTN 451, BOTN 453, BOTN 455, ZOOL 300, ZOOL 310, ZOOL 474, ZOOL 480, ZOOL 482 or ZOOL 485); or department permission.*

**BIOL 461 Oncology** 3 hrs

A lecture course on physico-chemico-biological agents and factors of nonhuman and human cancer etiology, pathogenesis of neoplastic transformation in vitro, biochemistry and immunobiology of cancer, host-tumor relationship, and "model systems" in control.

*Prereq: MICR 329.*

**BIOL 477/478/479 Special Topics** 1/2/3 hrs

An examination of advanced topics in biology not covered in other department offerings.

*Prereq: Department permission.*

**BIOL 480 Radiation Biology** 3 hrs

A lecture and laboratory course in introductory physiology devoted to the study of physiological mechanisms common to all living organisms. Basic processes at the cellular level emphasized, rather than the applications of such processes to a particular organism. BIOL 301 is highly recommended.

*Prereq: MICR 444, or BOTN 442, or ZOOL 427; PHY 221 and PHY 222 or equivalent; CHEM 121-CHEM 124.*

**BIOL 487 Cooperative Education in Biology** 3 hrs

Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in biology or technology. The program consists of two work experiences (BIOL 387 and BIOL 487) alternating with full-time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.

*Prereq: BIOL 387.*

**BIOL 497/498/499 Special Problems in Biology** 1/2/3 hrs

Individual work in some area of biology under direction of a staff member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be elected more than once, after resubmission and approval.

*Prereq: Department permission.*

## Botany Courses

**BOTN 177/178/179 Special Topics** 1/2/3 hrs

An examination of topics in botany not covered in other department offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission.*

**BOTN 209 Ornamental Plants** 2 hrs

A general cultural course to acquaint students with ornamental shrubs and trees, common weeds and house plants. Stress on identification and methods of propagation. Much time is spent in the greenhouse and on short field trips.

**BOTN 215 Economic Botany** 3 hrs

A study of plants useful to man, especially those that yield food, fibers, wood, rubber, drugs and other products of value. It is a lecture-demonstration course supplemented by reading. Open to all students without prerequisite, though previous training in biology, botany or agriculture is desirable.

**BOTN 221 General Botany** 4 hrs

The structure and function of seed plants and of representative lower plants, together with the fundamentals of plant heredity, ecology and



evolution. Two one-hour lectures, one one-hour recitation, plus four hours of laboratory experience.

*Prereq: High school biology or BIOL 105 or equivalent. Cannot be taken concurrently with ZOO 222 except by department permission.*

**BOTN 234 General Field Botany** 1 hr  
This course stresses field identification and ecological relationships of the higher plants. There is much opportunity for practice in the use of taxonomic keys.

**BOTN 277/278/279 Special Topics** 1/2/3 hrs  
An examination of topics in botany not covered in other department offerings. Students may elect this course more than once, provided different topics are studied.  
*Prereq: Department permission.*

**BOTN 354 Trees and Shrubs** 3 hrs  
A taxonomic field course on identification of native trees and shrubs in winter and summer conditions. Counts as a taxonomic field course.  
*Prereq: BIOL 205, or BIOL 110 and BIOL 120.*

**BOTN 377/378/379 Special Topics** 1/2/3 hrs  
An examination of topics in botany not covered in other department offerings. Students may elect this course more than once, provided different topics are studied.  
*Prereq: Department permission.*

**BOTN 387 Cooperative Education in Botany** 3 hrs  
Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in botany or technology. The program consists of two work experiences (BOTN 387 and BOTN 487) alternating with full-time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.  
*Prereq: Junior standing.*

**BOTN 404 Mycology** 3 hrs  
A lecture-laboratory course on the study of molds, rusts, mildews, edible and poisonous mushrooms, and other fungi. Their life history, economic importance, method of identification, and preservation are considered.  
*Prereq: BIOL 110 and BIOL 120.*

**BOTN 412 Plant Anatomy** 3 hrs  
A basic lecture-laboratory course in plant histology emphasizing recognition of primary and secondary tissues as variously combined in root, stem, leaf and flower of a wide variety of representative seed plants.  
*Prereq: BIOL 110 and BIOL 120.*

**BOTN 442 Plant Physiology** 3 hrs  
A detailed study of major plant functions with emphasis on growth and development presented by lecture, demonstration, and experimentation in laboratory and greenhouse.  
*Prereq: BIOL 110 and BIOL 120; BIOL 320; CHEM 270-CHEM 271 or CHEM 371-CHEM 372-CHEM 373.*

**BOTN 446 Medical Mycology** 4 hrs  
The medical and public health importance of diseases caused by fungi. Diagnostic methods and significant characteristics of the causal agents of mycoses are studied in this lecture-laboratory course. Fungi included are the contaminants, dermatophytes and systemics.  
*Prereq: MICR 328 or MICR 329 or BOTN 404.*

**BOTN 450 Taxonomy and Ecology of Aquatic Vascular Plants** 3 hrs  
Field and laboratory work in identification of herbaceous and shrubby vascular plants growing in aquatic habitats and in both vegetative and reproductive phases. Counts as a taxonomic field course.  
*Prereq: BIOL 110 and BIOL 120.*

**BOTN 451 Freshwater Algae** 3 hrs  
A survey of the freshwater algal divisions; their morphology, taxonomy, ecology and economic importance. Lectures emphasize an evolutionary approach. Laboratory work stresses the identification of representative algal taxa. Class field collections are made. Counts as a taxonomic field course.  
*Prereq: BIOL 110 and BIOL 120.*

**BOTN 453 Taxonomy and Ecology of Diatoms** 3 hrs  
A taxonomic field course on the collection, preservation and identification of freshwater diatoms. A survey of the diatom genera and the common or ecologically important species. Emphasis is placed on developing a familiarity with the more significant world literature. Collection required. Counts as a taxonomic field course.  
*Prereq: BOTN 451 or department permission.*

**BOTN 455 Systematic Botany** 3 hrs  
Covers the essentials of the collection, identification and classification of flowering plants. The student will become familiar with the major plant groups, both from lecture and herbarium study and from field experience in varied habitats. Counts as a taxonomic field course.  
*Prereq: BIOL 110 and BIOL 120.*

**BOTN 477/478/479 Special Topics** 1/2/3 hrs  
An examination of topics in botany not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.  
*Prereq: Department permission.*

**BOTN 487 Cooperative Education in Botany** 3 hrs  
Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in botany or technology. The program consists of two work experiences (BOTN 387 and BOTN 487) alternating with full-time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.  
*Prereq: BOTN 387.*

**BOTN 497/498/499 Special Problems in Botany** 1/2/3 hrs  
Individual work in some area of botany under direction of a staff member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be elected more than once, after resubmission and approval.  
*Prereq: Department permission.*

### Elementary Science Courses

ESCI courses cannot be used to satisfy requirements of the biology major or the biology minor

**BIOL 205 Field Biology** 4 hrs  
A lecture, laboratory and field course in the behavior, ecology, and broad classification of plants and animals, giving training in recognition of common plants and animals of Michigan. Gives background material to the non-specialist interested in outdoor life, and to the elementary school teacher. Not open to students having credit in BIOL 110 and/or BIOL 120 except by department permission. Does not count toward the biology major or biology minor.

**ESCI 177/178/179 Special Topics** 1/2/3 hrs  
An examination of topics in elementary science not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ESCI 277/278/279 Special Topics** 1/2/3 hrs

An examination of topics in elementary science not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission.*

**ESCI 302 Elementary School Science** 3 hrs

Intended for those planning to teach in the elementary grades. Prepares the student to organize the problems, collect the materials, and direct the activities of the elementary science class. Methods of presenting simple experiments to children and conducting field trips will be demonstrated. Two one-hour lectures and one two-hour laboratory. Not open to students who have taken ESCI 303.

**ESCI 303 Science for the Elementary Teacher** 3 hrs

Important biological concepts, especially relating to the interrelationships of organisms within their environment; the investigative or "discovery" approach; methodology involved in the new approaches to teaching science. One hour of lecture and four hours weekly involving recitation, laboratory or fieldwork. Concluding course in the elementary science sequence.

**ESCI 377/378/379 Special Topics** 1/2/3 hrs

An examination of topics in elementary science not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission.*

**ESCI 477/478/479 Special Topics** 1/2/3 hrs

An examination of topics in elementary science not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission.*

### Microbiology Courses

**MICR 177/178/179 Special Topics** 1/2/3 hrs

An examination of topics in microbiology not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission*

**MICR 277/278/279 Special Topics** 1/2/3 hrs

An examination of topics in microbiology not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission*

**MICR 328 Introductory Microbiology** 3 hrs

Introduction to the biology of bacteria and other microbes; transmission of infectious diseases; and principles of, control of, and immunity to infectious diseases. A lecture/lab course. Does not apply on the curriculum in clinical laboratory sciences or on microbiology concentration in biology major, but will count as an elective on general biology concentration or biology minor.

*Prereq: BIOL 105 and CHEM 120; or ZOOL 201 and ZOOL 202; or department permission.*

**MICR 329 General Microbiology** 5 hrs

A lecture and laboratory course on the nature and biology of bacteria and other microbes, their physiological relationships in natural and controlled environments, and the interactions of pathogenic microorganisms with their hosts. Laboratory includes an introduction to the techniques of isolating, cultivating, and identifying bacteria and other microbes, and their physiological, serological and pathological properties. Not open to those who take MICR 328. CHEM 451 is highly recommended.

*Prereq: BIOL 110 and BIOL 120; BIOL 301; and either CHEM 270-CHEM 271 or CHEM 371-CHEM 372-CHEM 373.*

**MICR 333 Principles of Immunology** 3 hrs

A lecture course presenting the theory and basic principles of immunology and serology including antigen-antibody reactions; immunoglobulin production; cellular immunity; hypersensitivity.

*Prereq: MICR 328 or MICR 329.*

**MICR 335 Immunology and Serology Laboratory** 2 hrs

A laboratory course designed to accompany or follow MICR 333. Theory and practice in serological techniques with emphases on antigen-antibody reactions such as precipitation, agglutination, viral neutralization and complement fixation. *Not open to those with credit in CLSC 335.*

*Prereq: MICR 333. (May be taken concurrently.)*

**MICR 340 Basic Virology** 3 hrs

A basic lecture and laboratory course on physico-chemico-biological nature of bacteriophages and viruses causing diseases in animals and plants, including their transmission, infection, replication (both transcription/translation of either DNA or RNA), cultivation in vitro, titration, host-virus interaction and control.

*Prereq: MICR 329.*

**MICR 377/378/379 Special Topics** 1/2/3 hrs

An examination of topics in microbiology not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission*

**MICR 387 Cooperative Education in Microbiology** 3 hrs

Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in microbiology or technology. The program consists of two work experiences (MICR 387 and MICR 487) alternating with full-time attendance at the University. Graded on a credit/no credit basis.

*Prereq: MICR 329 and junior standing. Admittance to program by application only.*

**MICR 432 Clinical Microbiology** 4 hrs

Lecture and laboratory. Mechanisms of pathogenesis and the specific bacterial and viral etiological agents of human disease. Methods of detection, isolation enumeration, and identification used in clinical laboratories. *Not open to those with credit in CLSC 432.*

*Prereq: MICR 329 or department permission.*

**MICR 442 Microbial Ecology** 3 hrs

Interactions among microbes (fungi, bacteria, some phages), other living organisms, and the environment, with emphases on parasitism, mutualism, commensalism and biogeochemical recycling of matter. Includes both laboratory and field exercises.

*Prereq: BIOL 110, BIOL 120, and MICR 329.*

**MICR 444 Microbial Physiology** 3 hrs

A lecture and laboratory course of physiological studies on bacteria and fungi. Emphasis will be placed on nutrition, metabolism, fermentation, physiology of parasitism, and biosynthesis of polymers by microbes. CHEM 451 and CHEM 453 are highly recommended.

*Prereq: MICR 329.*

**MICR 445 Food Microbiology** 3 hrs

A lecture and laboratory course on the qualitative and quantitative nature of microbiology in relation to foods and food systems, behavior and detection of bacteria, toxin production, destruction of microbes by heat and other means, and food sanitation.

*Prereq: MICR 328 or MICR 329.*

**MICR 452 Advanced Microbiology** 4 hrs

A lecture and laboratory course to provide an in-depth study of the morphological, biochemical and genetic relationships of bacteria. Emphasis will be on physiological transformations carried out by autotrophic and

heterotrophic organisms in their environment, regulation of growth, and advanced isolation and characterization techniques.

*Prereq: MICR 329, MICR 444, and CHEM 451.*

**MICR 454 Molecular Biology of Bacteria and Viruses 3 hrs**

A lecture course on ultrastructure of both bacteria and viruses and expression of their genomes (such as operons, morphogenesis and control, modification and restriction, virus induced enzymes, and replication and control mechanisms), viral carcinogens, and implication in disease control.

*Prereq: MICR 329; and a course in physiology (BIOL 320, MICR 444, BOTN 442, ZOOL 427, OR ZOOL 437).*

**MICR 477/478/479 Special Topics 1/2/3 hrs**

An examination of topics in microbiology not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission.*

**MICR 487 Cooperative Education in Microbiology 3 hrs**

Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in microbiology or technology. The program consists of two work experiences (MICR 387 and MICR 487) alternating with full-time attendance at the University. Graded on a credit/no credit basis.

*Prereq: MICR 387.*

**MICR 497/498/499 Special Problems 1/2/3 hrs**

Individual work in an area of microbiology under direction of a staff member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be elected more than once, after resubmission and approval.

*Prereq: Department permission.*

### Zoology Courses

**ZOOL 177/178/179 Special Topics 1/2/3 hrs**

An examination of zoology topics not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission.*

**ZOOL 201 Human Anatomy and Physiology I 3 hrs**

An intensive lecture and laboratory course investigating human anatomy and physiology with emphasis on both normal and pathological conditions, in a two-semester sequence. First semester will cover the basic structure and functions of the muscular, skeletal and nervous systems. Credit toward nursing and biology programs counts only if ZOOL 201 and ZOOL 202 are taken consecutively.

*Prereq: CHEM 120.*

**ZOOL 202 Human Anatomy and Physiology II 3 hrs**

An intensive lecture and laboratory course investigating human anatomy and physiology with emphasis on both normal and pathological conditions, in a two-semester sequence. The second semester will cover circulation, metabolism, the endocrine, digestive, excretory and reproductive systems, and the integration of the systems of the body.

*Prereq: CHEM 120 and ZOOL 201.*

**ZOOL 222 General Zoology 4 hrs**

A general survey of the groups of invertebrate and vertebrate animals according to the evolutionary sequence. Emphasis is placed upon the classification and structures, also on such aspects as physiology, life histories, habits, distribution and economic relations. Two one-hour lectures, one one-hour recitation, and four hours of audio-tutorial laboratory.

*Prereq: High school biology or BIOL 105 or equivalent. Cannot be taken concurrently with BOTN 221 except by department permission.*

**ZOOL 223 Field Bird Study 1 hr**

Identification of birds and their songs and nesting habits, studied in laboratory and field.

**ZOOL 277/278/279 Special Topics 1/2/3 hrs**

An examination of zoology topics not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission.*

**ZOOL 300 Natural History of Invertebrates 3 hrs**

A field course in the recognition, collection, identification and preservation of common invertebrates of Michigan, exclusive of the insects, with emphasis on their natural history, ecology and economic importance. Counts as a taxonomic field course.

*Prereq: BIOL 110 and BIOL 120.*

**ZOOL 310 Natural History of Vertebrates 3 hrs**

A survey of vertebrates, emphasizing their adaptations and their natural history. Laboratory work will stress the taxonomic classification, identification and distribution of local and other forms. Fieldwork will emphasize accurate observation and permanent recording of original data on local species. Counts as a taxonomic field course.

*Prereq: BIOL 110 and BIOL 120.*

**ZOOL 317 Human Gross Anatomy 5 hrs**

A lecture, demonstration and laboratory course on gross anatomy of the human body with emphasis on the extremities.

*Prereq: BIOL 105 and department permission.*

**ZOOL 318 Laboratory in Human Anatomy 2 hrs**

Laboratory with prosection and dissection of human cadaver by students. Designed to accompany lecture material in SPMD 200.

*Coreq: SPMD 200.*

**ZOOL 323 Animal Embryology 3 hrs**

Fundamental facts and principles of the reproduction and development of animals with laboratory studies of the frog, chicken, pig and other forms.

*Prereq: BIOL 110 and BIOL 120.*

**ZOOL 326 Human Physiology 3 hrs**

A study of the functioning of the human body. Lecture, laboratory and demonstration.

*Prereq: BIOL 105. Not open to biology majors, but can be taken on a biology minor in which case BIOL 110 and BIOL 120 are prerequisites. Credit will be given for both ZOOL 326 and ZOOL 427 on the minor. Open to dietetics and occupational therapy majors.*

**ZOOL 366 Economic Zoology 2 hrs**

A survey of the species and breeds of animals that are used as beasts of burden, and supply food, clothing, sport and recreation or serve as pets. A lecture course.

*Prereq: One course in college zoology at the 100, 200 or 300 levels.*

**ZOOL 377/378/379 Special Topics 1/2/3 hrs**

An examination of zoology topics not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Department permission.*

**ZOOL 387 Cooperative Education in Zoology 3 hrs**

Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in zoology or technology. The program consists of two work experiences (ZOOL 387 and ZOOL 487) alternating with full-time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.

*Prereq: Junior standing.*

- ZOOL 404 Mammalian Histology** 3 hrs  
A lecture/laboratory course dealing with the structure and properties of mammalian organs and their component tissues.  
*Prereq: BIOL 110 and BIOL 120.*
- ZOOL 417 Neuroanatomy** 3 hrs  
A lecture/laboratory course concerned with the study of the human nervous system, lesions and resulting disabilities.  
*Prereq: BIOL 110 and BIOL 120.*
- ZOOL 421 Entomology** 3 hrs  
A survey of the world of insects, their structure, function, behavior and ecology. The identification and classification of local insects will be stressed. A student field project will be required. Counts as a taxonomic field course.  
*Prereq: BIOL 110 and BIOL 120.*
- ZOOL 422 Ichthyology** 3 hrs  
A study of the biology, classification, distribution and evolution of fishes. Attention is given to the morphology, physiology, behavior, natural history and ecology of fishes through work in lecture, laboratory and in the field. Specific experience in the identification of the freshwater fishes of the Great Lakes region is provided in addition to a general survey of some marine fish families. Counts as a taxonomic field course.  
*Prereq: BIOL 110 and BIOL 120.*
- ZOOL 425 Ornithology** 3 hrs  
A course in bird biology for the secondary teacher and students with advanced interest in biology. Field identification and census methods will be used to introduce the study of bird populations, behavior and ecology. A survey of major North American bird families will be made in the laboratory. A student field project will be required. Counts as a taxonomic field course.  
*Prereq: BIOL 110 and BIOL 120.*
- ZOOL 427 Vertebrate Physiology** 3 hrs  
A detailed study of physiological phenomena of the vertebrate body at the cellular and organ level with laboratory experiments to illustrate. Organ-to-organ interaction is emphasized. One year of college physics is highly recommended.  
*Prereq: BIOL 110 and BIOL 120; BIOL 320; CHEM 270-CHEM 271 or CHEM 371-CHEM 372-CHEM 373.*
- ZOOL 430 Invertebrate Zoology** 4 hrs  
Phylogenetic and anatomical study of one or more representative types from each phylum of invertebrates, with special emphasis on taxonomy, classical literature and current research. Three lectures and two two-hour labs weekly.  
*Prereq: BIOL 110 and BIOL 120.*
- ZOOL 431 Comparative Anatomy of Vertebrates** 4 hrs  
The anatomy of the vertebrate organ systems is studied on a comparative basis, which emphasizes the evolutionary development of the groups. Laboratory work includes detailed dissection of a shark and cat. Three one-hour lectures and two two-hour laboratory periods per week.  
*Prereq: BIOL 110 and BIOL 120.*
- ZOOL 437 Invertebrate Physiology** 3 hrs  
A lecture/lab course to study the functional processes of both terrestrial and aquatic insects and other major invertebrate groups. Builds upon a general understanding of physiology to compare the ways different invertebrates have evolved solutions to common physiological problems. In the laboratory, standard physiological research techniques will be used to demonstrate the lecture concepts. Some of these techniques will be applied in a student-designed research exercise and report. ZOOL 430 is highly recommended.  
*Prereq: BIOL 110 and BIOL 120; BIOL 320; CHEM 270-CHEM 271 or CHEM 371-CHEM 372-CHEM 373.*
- ZOOL 439 Physiological Ecology** 3 hrs  
A lecture, laboratory and discussion course covering thermoregulation, metabolic rate, torpor, water flux, and specific adaptations for life in the cold, deserts, high altitude and great depths. Laboratory work emphasizes computerized data acquisition.  
*Prereq: BIOL 110 and BIOL 120; BIOL 320.*
- ZOOL 462 Parasitology** 3 hrs  
A survey of animal parasites that affect other animals including the human. Lecture and laboratory.  
*Prereq: ZOOL 222.*
- ZOOL 474 Herpetology** 3 hrs  
The biology of amphibians and reptiles; taxonomy, origins and evolution, anatomy, adaptations, behavior, ecology, zoogeography. Local hibernating and spring-breeding populations will be studied in the field, including at night and/or during inclement weather and on two Saturday field trips. Laboratory work will cover dissection of a representative amphibian and reptile, and study of living and preserved specimens of extant orders and families and North American species. Counts as a taxonomic field course.  
*Prereq: BIOL 110 and BIOL 120; and one of the following: BIOL 420, ZOOL 310, or ZOOL 431.*
- ZOOL 477/478/479 Special Topics** 1/2/3 hrs  
An examination of zoology topics not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.  
*Prereq: Department permission.*
- ZOOL 480 Protozoology** 3 hrs  
Survey of the protozoa with emphasis on their life cycles, morphology and ecology. Both free living and parasitic forms will be discussed. Techniques of collecting, culturing and preserving protozoans and their identification will be emphasized in the laboratory. Counts as a taxonomic field course.  
*Prereq: BIOL 110 and BIOL 120.*
- ZOOL 482 Aquatic Entomology** 3 hrs  
The study of aquatic insect families and their general ecology, life histories and taxonomy. A collection of the common aquatic insect families of the area is required. Counts as a taxonomic field course.  
*Prereq: BIOL 110 and BIOL 120.*
- ZOOL 485 Mammalogy** 3 hrs  
Some aspects of the biology of mammals: origins and evolution, anatomy, classification, adaptations and zoogeography. Natural history and aspects of their ecology are studied in the field. A collection of study specimens of different species is required of each student. Counts as a taxonomic field course.  
*Prereq: BIOL 110 and BIOL 120, and one of the following: ZOOL 310, BIOL 420, or ZOOL 431.*
- ZOOL 487 Cooperative Education in Zoology** 3 hrs  
Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in zoology or technology. The program consists of two work experiences (ZOOL 387 and ZOOL 487) alternating with full-time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.  
*Prereq: ZOOL 387.*
- ZOOL 497/498/499 Special Problems in Zoology** 1/2/3 hrs  
Individual work in some area of zoology under direction of a staff member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be selected more than once, after resubmission and approval.  
*Prereq: Department permission.*



# Chemistry

Web site: [www.emich.edu/public/chemistry/chmhome.htm](http://www.emich.edu/public/chemistry/chmhome.htm)

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**Professors:** Michael J. Brabec, Stephen W. Brewer Jr., Ronald W. Collins, Arthur S. Howard, Maria C. Milletti, Elva Mae Nicholson, Ross S. Nord, Donald B. Phillips, Krishnaswamy Rengan, Stephen E. Schullery, John M. Sullivan, Wade J. Tornquist, Stewart D. Work

**Associate Professors:** Ellene T. Contis, Deborah L. Heyl-Clegg, Donald M. Snyder, Jose C. Vites, Jerry R. Williamson

**Assistant Professors:** Timothy R. Brewer, Elizabeth R. Butch, Vance O. Kennedy, Steven J. Pernecky, Heather L. Smith

The Chemistry Department 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 spacious Mark Jefferson Science Complex, the department has laboratories available for all areas of study. Major items of equipment include: research-quality UV, visible and Fourier-transform IR spectrophotometers; gas and high-performance liquid chromatographs; X-ray diffraction and fluorescence apparatus; preparative ultracentrifuges; fluorimeters; a DTA-DSC-TGA thermal analysis system; a gas chromatograph-mass spectrometer; and a titration microcalorimeter. The department also has a Bruker 250 MHz superconducting nuclear magnetic resonance (NMR) spectrometer. In addition, a computer laboratory and specialized facilities and equipment for radiochemistry and cell culture are available.

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

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

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

## Degrees:

Bachelor of Science and Bachelor of Arts

## Programs of Study:

### Majors:

Chemistry for secondary education  
General chemistry

### Curricula:

Professional chemistry  
Professional biochemistry  
General biochemistry  
Biochemistry/toxicology

### Minors:

Chemistry  
Chemistry for secondary, K-12, and special education-secondary  
Biochemistry

## Preprofessional Programs:

Pre dentistry  
Pre medicine  
Pre mortuary science  
Pre pharmacy

Advising for students desiring to pursue a program in chemistry is available through either the undergraduate advising coordinator, or an adviser identified on the adviser list in the Chemistry Department office, or an area advising coordinator listed below. A handbook for undergraduate chemistry students is available in the department office.

## Advising Coordinators:

Undergraduate Advising Coordinator: Elva Mae Nicholson  
Biochemistry: Deborah Heyl-Clegg  
Biochemistry/Toxicology: Michael Brabec  
Pre dentistry (including dental hygiene and dental assisting programs): Timothy Brewer  
Pre medicine: Elva Mae Nicholson  
Pre mortuary Science: Steven Pernecky  
Pre pharmacy: Deborah Heyl-Clegg  
Cooperative Education in Chemistry: Elva Mae Nicholson

## Professional Chemistry Curriculum

### ISIS major code: CH02

This curriculum provides the necessary background for those planning to become professional chemists. With appropriate electives, it meets the requirements established by the American Chemical Society. Students successfully completing the curriculum are prepared to enter technical positions in industrial and governmental research, or to undertake graduate study in chemistry. 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 credit hours or an equivalent reading knowledge of a foreign language, preferably German, are recommended.

*Required courses and electives in science and mathematics are listed below. Additional general education and elective courses totaling 124 credit hours are required to complete a degree.*

Required courses:	65
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
CHEM 281 Quantitative Analysis .....	4
CHEM 361 Fundamentals of Physical Chemistry .....	3
CHEM 365 Physical Chemistry Laboratory .....	2
CHEM 371 Organic Chemistry I .....	3
CHEM 372 Organic Chemistry II .....	3
CHEM 373 Organic Chemistry Laboratory .....	2
CHEM 432 Advanced Inorganic Chemistry .....	3
CHEM 433 Inorganic-Organic Synthesis Laboratory .....	2
CHEM 465 Quantum and Statistical Mechanics .....	3
CHEM 481 Instrumental Analysis .....	4
#MATH 120 Calculus I (satisfies general education requirement I.4) .....	4
#MATH 121 Calculus II (satisfies general education requirement I.4) .....	4
<i>(Students deficient in high school preparation must take MATH 105 College Algebra before entering calculus.)</i>	
#MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) .....	3
MATH 223 Multivariable Calculus .....	4
MATH 325 Differential Equations .....	3



#PHY 223 Mechanics, Sound, and Heat (satisfies general education requirement II.1 or II.3) ..... 5

PHY 224 Electricity and Light ..... 5

*Electives:* ..... 4

Choose two advanced courses from the following (at least one must be in the Chemistry Department). Certification by American Chemical Society requires appropriate selection of electives from among those indicated by "\*".

#### Chemistry

CHEM 411 Toxicology I, CHEM 412 Toxicology II, CHEM 413 Toxicology Laboratory, CHEM 414 Regulatory Toxicology, \*CHEM 451 Biochemistry I, \*CHEM 452 Biochemistry II, \*CHEM 453 Biochemistry Laboratory, \*CHEM 475 Introduction to Polymer Chemistry, \*CHEM 485 Introduction to Radiotracer Techniques, CHEM 477/478/479 Special Topics, CHEM 487/488/489 Cooperative Education in Chemistry, CHEM 497 Undergraduate Research in Chemistry, \*CHEM 498/499 Undergraduate Research in Chemistry, \*CHEM 553 Enzymology, \*CHEM 555 Neurochemistry, \*CHEM 561 Quantum Chemistry and Spectroscopy, \*CHEM 562 Statistical Mechanics and Chemical Kinetics, \*CHEM 565 Nuclear Chemistry, \*CHEM 571 Advanced Organic Chemistry, \*CHEM 572 Spectrometric Organic Structure Determination, \*CHEM 574 Advanced Organic Chemistry Topics

#### Mathematics and computer science

#COSC 237 Computer Programming and Numeric Methods (satisfies general education requirement I.5), COSC 337 Programming Languages, MATH 425 Mathematics for Scientists, other 400-level courses with department permission

#### Physics

PHY 330 Intermediate Mechanics I, PHY 360 Heat and Thermodynamics, PHY 440 Optics, PHY 450 Electricity and Magnetism II, PHY 452 Electrical Measurements, PHY 456 Electronics for Scientists, PHY 471 Nuclear Physics, PHY 475 Introduction to Quantum Mechanics

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/chm/ugrad/major/chm\\_p.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/chm/ugrad/major/chm_p.html).

**Total:** ..... 69

*#Advising note:* 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.

## Professional Biochemistry Curriculum

**ISIS major code: CH03**

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

*Required courses and electives in science and mathematics are listed below. Additional general education and elective courses totaling 124 credit hours are required to complete a degree.*

*Required courses:* ..... 71

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ... 4

CHEM 123 General Chemistry II ..... 3

CHEM 124 General Chemistry II Laboratory ..... 1

CHEM 281 Quantitative Analysis ..... 4

CHEM 361 Fundamentals of Physical Chemistry ..... 3

CHEM 365 Physical Chemistry Laboratory ..... 2

CHEM 371 Organic Chemistry I ..... 3

CHEM 372 Organic Chemistry II ..... 3

CHEM 373 Organic Chemistry Laboratory ..... 2

CHEM 451 Biochemistry I ..... 3

CHEM 452 Biochemistry II ..... 3

CHEM 453 Biochemistry Laboratory ..... 2

CHEM 465 Quantum and Statistical Mechanics ..... 3

#BOTN 221 General Botany (satisfies general education requirement II.2 or II.3) or #ZOO 222 General Zoology (satisfies general education requirement II.2 or II.3) ..... 4

BIOL 301 Genetics ..... 3

#MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4

#MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4

#MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) ..... 3

MATH 223 Multivariable Calculus ..... 4

MATH 325 Differential Equations ..... 3

#PHY 223 Mechanics, Sound, and Heat (satisfies general education requirement II.1 or II.3) ..... 5

PHY 224 Electricity and Light ..... 5

*Electives:* ..... 7

Choose four credits from the following:

CHEM 411 Toxicology I, CHEM 412 Toxicology II, CHEM 413 Toxicology Laboratory, CHEM 414 Regulatory Toxicology, CHEM 433 Inorganic-Organic Synthesis Laboratory, CHEM 475 Introduction to Polymer Chemistry, CHEM 477/478/479 Special Topics, CHEM 481 Instrumental Analysis, CHEM 485 Introduction to Radiotracer Techniques, CHEM 487/488/489 Cooperative Education in Chemistry, CHEM 497/498/499 Undergraduate Research in Chemistry, CHEM 553 Enzymology, CHEM 555 Neurochemistry, CHEM 572 Spectrometric Organic Structure Determination

Choose three credits from any courses in biology numbered 300 or above.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/chm/ugrad/major/biochm\\_p.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/chm/ugrad/major/biochm_p.html).

**Total:** ..... 78

*#Advising note:* 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.

## General Biochemistry Curriculum

**ISIS major code: CH04**

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

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

*\*Required courses and electives in science and mathematics are listed below. Additional general education and elective courses totaling 124 credit hours are required to complete a degree.*

<i>Required courses:</i> .....	50
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
*CHEM 270 Organic Chemistry .....	4
*CHEM 271 Organic Chemistry Laboratory .....	1

(\*Premed and pre-dentistry students should substitute CHEM 371-CHEM 373 Organic Chemistry I-II with lab to satisfy most medical and dental school requirements for organic chemistry.)

CHEM 281 Quantitative Analysis .....	4
CHEM 361 Fundamentals of Physical Chemistry .....	3
CHEM 381 Instrumentation for Chemical Technology .....	2
CHEM 451 Biochemistry I .....	3
CHEM 452 Biochemistry II .....	3
CHEM 453 Biochemistry Laboratory .....	2
#BOTN 221 General Botany (satisfies general education requirement II.2 or II.3) or #ZOO 222 General Zoology (satisfies general education requirement II.2 or II.3) .....	4
BIOL 301 Genetics .....	3
#MATH 120 Calculus I (satisfies general education requirement I.4) .....	4
#PHY 223 Mechanics, Sound, and Heat (satisfies general education requirement II.1 or II.3) .....	5
PHY 222 or PHY 224 Electricity and Light .....	4-5
<i>Electives</i> .....	5
Choose five credits from any biology courses numbered 300 or above.	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/chm/ugrad/major/biochm\\_g.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/chm/ugrad/major/biochm_g.html).

**Total:** ..... 55 hours

*#Advising note:* 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.

## General Chemistry Major

**ISIS major code: CH01**

The general chemistry major is for those who seek a general cultural education with emphasis on chemistry, 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 planning to pursue a career as a professional chemist or who are interested in graduate training in chemistry should elect the professional chemistry curriculum.

<b>Required courses:</b> .....	25
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
CHEM 281 Quantitative Analysis .....	4
*CHEM 361 Fundamentals of Physical Chemistry .....	3
CHEM 371 Organic Chemistry I .....	3
CHEM 372 Organic Chemistry II .....	3
CHEM 373 Organic Chemistry Laboratory .....	2
CHEM 381 Instrumentation for Chemical Technology .....	2

\*Prerequisites for CHEM 361 include MATH 120 Calculus I, PHY 223 Mechanics, Sound, and Heat, and either PHY 222/PHY 224 Electricity and Light, a total of 13-14 credit hours, all of which are required for a chemistry major.

**Electives:** ..... 5  
Choose five credits from 300- and 400-level courses in chemistry.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/chm/ugrad/major/chm\\_g.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/chm/ugrad/major/chm_g.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

## Chemistry Major

### Secondary Teacher Certification

**ISIS major code: CH31**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in chemistry, certification code "DC," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the National Science Teachers Association. The certification test covering this field is #18, "Chemistry."

*Teaching Major:* ..... 43

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
CHEM 281 Quantitative Analysis .....	4
CHEM 361 Fundamentals of Physical Chemistry .....	3
CHEM 451 Biochemistry I .....	3
CHEM 371 Organic Chemistry I .....	3
CHEM 372 Organic Chemistry II .....	3
CHEM 373 Organic Chemistry Laboratory .....	2
CHEM 381 Instrumentation for Chemical Technology .....	2
Four credits from 300- and 400-level courses in chemistry .....	4
One of: .....	4-5
PHY 222 Electricity and Light (4)	
PHY 224 Electricity and Light (5)	
Additional hours, totaling 16 taken in physics, biology, and earth science, and including at least one course from each of physics, biology, and earth science .....	7

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/chm/ugrad/major/chm\\_t.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/chm/ugrad/major/chm_t.html).

*#Advising note:* CHEM 121 and CHEM 122 satisfy both general education requirement II.1 and a requirement of the minor. In order to avoid taking excess hours, students are advised to take CHEM 121 and CHEM 122, or approved substitutes from another institution, as part of the general education requirements.

## Biochemistry/Toxicology Curriculum

**ISIS major code: CH05**

The biochemistry/toxicology curriculum is designed to prepare students for employment in laboratories doing toxicology testing in such fields as pharmaceutical chemistry, environmental studies, occupational health and safety, and forensic toxicology. This curriculum also provides preparation for students anticipating graduate study and a research career in toxicology and pharmacology-related fields. Included in the required courses is a group minor of biology, mathematics and physics. No other minor is needed to meet graduation requirements.

\*Required courses and electives in science and mathematics are listed below. Additional general education and elective courses totaling 124 credit hours are required to complete a degree.

#### Required courses

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
CHEM 281 Quantitative Analysis .....	4
CHEM 361 Fundamentals of Physical Chemistry .....	3
CHEM 371 Organic Chemistry I .....	3
CHEM 372 Organic Chemistry II .....	3
CHEM 373 Organic Chemistry Laboratory .....	2
CHEM 381 Instrumentation for Chemical Technology .....	2
CHEM 411 Toxicology I .....	2
CHEM 412 Toxicology II .....	2
CHEM 413 Toxicology Laboratory .....	2
CHEM 451 Biochemistry I .....	3
CHEM 452 Biochemistry II .....	3
CHEM 453 Biochemistry Laboratory .....	2
CHEM 485 Introduction to Radiotracer Techniques .....	2
BIOL 320 Introduction to Cell Physiology or ZOOLOG 326 Human Physiology .....	3-4
#ZOOLOG 222 General Zoology (satisfies general education requirement II.2 or II.3) .....	4
ZOOLOG 404 Mammalian Histology .....	3
ZOOLOG 431 Comparative Anatomy of Vertebrates or ZOOLOG 317 Human Gross Anatomy .....	4-5
#MATH 120 Calculus I (satisfies general education requirement I.4) .....	4
#PHY 223 Mechanics, Sound, and Heat (satisfies general education requirement II.1 or II.3) .....	5
PHY 222 or PHY 224 Electricity and Light .....	4-5
One toxicology class numbered above 413, or enrollment in a toxicology cooperative education project (CHEM 487/488/489) .....	2-4
A statistics course (#MATH 170 Elementary Statistics I (satisfies general education requirement I.4) or PSY 205 Quantitative Methods in Psychology) .....	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/chm/ugrad/major/tox.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/chm/ugrad/major/tox.html).

**Total:** ..... 73

#Advising note: 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.

## Biochemistry Minor

ISIS minor code: CH04

#### Required courses

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
CHEM 270 Organic Chemistry .....	4
CHEM 271 Organic Chemistry Laboratory .....	1
CHEM 281 Quantitative Analysis .....	4
CHEM 451 Biochemistry I .....	3
CHEM 453 Biochemistry Laboratory .....	2

(The CHEM 371-CHEM 373 Organic Chemistry sequence may be substituted for CHEM 270-CHEM 271 Organic Chemistry if a stronger background is desired.)

**Total:** ..... 22 hours

#Advising note: These courses satisfy both general education requirements and requirements of the minor. 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.

## Chemistry Minor

ISIS minor code: CH01

**Required courses:** ..... 17

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
CHEM 270 Organic Chemistry .....	4
CHEM 271 Organic Chemistry Laboratory .....	1
CHEM 281 Quantitative Analysis .....	4

(The CHEM 371-CHEM 372-CHEM 373 Organic Chemistry sequence may be substituted for CHEM 270-CHEM 271 Organic Chemistry with lab if a stronger background is desired.)

**Electives:** ..... 3

Choose from courses numbered above 200 in chemistry

**Total:** ..... 20 hours

#Advising note: These courses satisfy both general education requirements and requirements of the minor. 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.

## Chemistry Minor

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

ISIS minor code: CH32

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 certification test covering this field is #18, "Chemistry."

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
CHEM 270 Organic Chemistry .....	4
CHEM 271 Organic Chemistry Laboratory .....	1
CHEM 281 Quantitative Analysis .....	4

(The CHEM 371-CHEM 372-CHEM 373 Organic Chemistry sequence may be substituted for CHEM 270-CHEM 271 Organic Chemistry with lab if a stronger background is desired.)

Seven hours in chemistry from courses numbered above 2007

**Total:** ..... 24 hours

#Advising note: These courses satisfy both general education requirements and requirements of the minor. 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.

## Pre-Professional Programs

### Pre-Dentistry

ISIS major code: CH07

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

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

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

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

#### Recommended courses:

- CHEM 121-124 General Chemistry I-II with labs, CHEM 371-373 Organic Chemistry I-II with lab
- PHY 221 Mechanics, Sound, and Heat; PHY 222 Electricity and Light
- ZOOL 222 General Zoology plus one other biology course

### Dental Hygiene and Dental Assisting

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

Students interested in these programs should plan on transferring after completing their freshman year at EMU. Liberal arts preparation in English composition, speech, chemistry (CHEM 117-118 Fundamentals of Chemistry with lab), psychology, sociology and political science, plus electives in social science, natural science and humanities, generally will be transferable. More specific descriptions of requirements should be obtained by writing to the schools in question since requirements vary from school to school.

### Pre-Mortuary Science

ISIS major code: CH08

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

- CHEM 121-124 General Chemistry I and II with labs
- BIOL 105 Introductory Biology for Non-majors
- MATH 104 Intermediate Algebra or other mathematics elective
- PSY 101 General Psychology

The Board of Examiners in Mortuary Science recommends use of some elective hours for courses in the following areas (suggested appropriate courses in parentheses):

- Behavioral sciences (PSY 225 Psychology of Religion, PSY 323 Psychology of Human Aging; SOCL 105 Introductory Sociology, SOCL 311 Social Gerontology)

Business (LAW 293 Legal Environment of Business; ACC 240 Principles of Accounting I; ECON 200 The American Economy, #ECON 201 Principles of Economics I [satisfies general education requirement III.3]; MKTG 360 Principles of Marketing, MKTG 363 Retailing)

Counseling (CSAP 450 An Introduction: Counseling Concepts and Skills, with permission)

First aid (HLED 210 Standard American Red Cross First Aid)

Public speaking (#CTAS 121/CTAS 124 Fundamentals of Speech [satisfies general education requirement I.3], #CTAC 225

Listening Behavior [satisfies general education requirement I.3],

#CTAC 226 Nonverbal Communication [satisfies general education requirement I.3], #CTAC 227 Interpersonal Communication [satisfies general education requirement I.3])

### Pre-Pharmacy

ISIS major code: CH09

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

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

#### Recommended courses:

- CHEM 121-124 General Chemistry I-II with labs
- CHEM 371-373 Organic Chemistry I-II with lab
- One semester of biology with lab (some schools require additional courses)
- #MATH 120 Calculus I (satisfies general education requirement I.4)
- #ENGL 121 English Composition (satisfies general education requirement I.1) plus two social science courses and two humanities courses (two foreign language courses may be substituted for the humanities courses).

## Chemistry Courses

**CHEM 101 Science for Elementary Teachers** 3 hrs  
Designed for students who plan to teach in elementary school. Lectures deal with some basic principles of chemistry while the laboratory work emphasizes the discovery approach as it may be used in an elementary classroom. Simple equipment and easily obtained chemicals are used in the experiments. Does not count toward major or minor. Lecture: two hours per week. Laboratory: two hours per week.  
*Prereq: PHY 100.*

**CHEM 115 Chemistry and Society** 3 hrs  
Examines the relevance of chemistry to the problem of how humans relate to the environment. It is designed for humanities and other nonscience majors. No previous mathematics or chemistry is required. CHEM 116 may be taken concurrently to satisfy the laboratory science requirement for general studies. Does not count toward major or minor. Lecture: three hours per week.

**CHEM 116 Chemistry and Society Laboratory** 1 hr  
Laboratory experiments based on environmental problems such as water and air pollution, drugs and pesticides. The laboratory may be taken concurrently with CHEM 115 to satisfy the Area II physical science requirement. Does not count toward major or minor. Laboratory: two hours per week.  
*Prereq or Coreq: CHEM 115.*

**CHEM 117 Fundamentals of Chemistry-Lecture** 3 hrs  
A rapidly moving introductory study of basic principles in general chemistry. Includes elements, compounds, periodic properties, atomic structure, gas laws and stoichiometry. Does not count toward major or minor.



Can be used with CHEM 118 to satisfy the chemistry prerequisite for CHEM 121. Will satisfy Area II physical science requirement when taken concurrently with CHEM 118. Lecture: three hours per week.

*Prereq: MATH 104 or Level 4 in the math placement system. Coreq: CHEM 118.*

**CHEM 118 Fundamentals of Chemistry Laboratory 1 hr**

Designed to accompany CHEM 117 lecture. Will provide an introduction to scientific discovery through experimentation and observation. Experiments are drawn from topics presented in the chemistry lectures in CHEM 117. Does not count toward major or minor. Laboratory: two hours per week.

*Prereq: MATH 104 or Level 4 in the math placement system. Coreq: CHEM 117.*

**CHEM 120 Fundamentals of Organic and Biochemistry 4 hrs**

A survey of organic chemistry and biochemistry; completes the study of chemistry begun in CHEM 117-CHEM 118 and is a terminal course. Does not count toward major or minor. Lecture: three hours per week. Laboratory: two hours per week.

*Prereq: CHEM 117-CHEM 118, or one year of high school chemistry.*

**CHEM 121 General Chemistry I 3 hrs**

The first semester of a two-semester sequence covering the principles of chemistry for science majors and others with an interest and background in science. Lecture: three hours per week.

*Prereq: High school chemistry or CHEM 117-CHEM 118; two years of high school algebra or MATH 105. Coreq: CHEM 122.*

**CHEM 122 General Chemistry I Laboratory 1 hr**

The laboratory class to accompany CHEM 121. Students learn basic techniques employed in a chemistry laboratory, including use of analytical balances, quantitative glassware, spectrophotometry, and computers for data acquisition and analysis. Laboratory: three hours per week.

*Coreq: CHEM 121.*

**CHEM 123 General Chemistry II 3 hrs**

A continuation of the two-semester sequence covering the general principles of chemistry for science majors and others with an interest and background in science. Lecture: three hours per week. Restriction: "C-" or better in CHEM 121.

*Prereq: CHEM 121 and CHEM 122. Coreq: CHEM 124.*

**CHEM 124 General Chemistry II Laboratory 1 hr**

The techniques learned in CHEM 122 are reemphasized and supplemented. Laboratory: three hours per week. "C-" or better in CHEM 122.

*Coreq: CHEM 123.*

**CHEM 125 Honors General Chemistry II (Lecture) 3 hrs**

A continuation of CHEM 121 General Chemistry for students of superior ability. The sequence of CHEM 121, CHEM 122, CHEM 125 and CHEM 126 can constitute the customary year of general chemistry. Lecture: three hours per week.

*Prereq: CHEM 121-CHEM 122 and consent of Honors Committee. Coreq: CHEM 126.*

**CHEM 126 Honors General Chemistry II (lab) 1 hr**

The laboratory to accompany CHEM 125. The techniques learned in CHEM 122 are reemphasized and supplemented. Preparation of a laboratory notebook is required. The sequence of CHEM 121, CHEM 122, CHEM 125 and CHEM 126 can constitute the customary year of general chemistry. Laboratory: three hours per week.

*Coreq: CHEM 125.*

**CHEM 177/178/179 Special Topics 1/2/3 hrs**

Covers specific chemistry topics not discussed in any regular, introductory chemistry course.

*Prereq: Department permission.*

**CHEM 232 Inorganic Chemistry 2 hrs**

Descriptive inorganic chemistry; properties and reactions of the elements and their compounds are correlated with the periodic table, atomic structures, and basic chemical principles. Lecture: two hours per week.

*Prereq: CHEM 123-CHEM 124, or CHEM 125-CHEM 126.*

**CHEM 241 Materials Science 3 hrs**

Considers the relation of composition and structure to properties of materials: metals, plastics, ceramics, glass and composites. Lecture: three hours per week.

*Prereq: CHEM 123-CHEM 124, or CHEM 125-CHEM 126; PHY 221/PHY 223.*

**CHEM 242 Materials Science Laboratory 1 hr**

Measurement of mechanical properties and investigation of crystal structures, microstructures, imperfections and transformations (solidification, recrystallization, solid phase changes and corrosion) of materials. Laboratory: three hours per week.

*Coreq: CHEM 241.*

**CHEM 270 Organic Chemistry 4 hrs**

A comprehensive one-semester survey course in organic chemistry. Includes aliphatic and aromatic compounds plus functional group chemistry. Chemistry majors and other students requiring a full-year sequence of organic chemistry should enroll in CHEM 371 and CHEM 372. Lecture: four hours per week.

*Prereq: CHEM 123-CHEM 124, or CHEM 125-CHEM 126.*

**CHEM 271 Organic Chemistry Laboratory 1 hr**

Instruction in the basic manipulative techniques of experimental organic chemistry and experience with organic chemicals. Laboratory: three hours per week.

*Prereq or coreq: CHEM 270.*

**CHEM 277/278/279 Special Topics 1/2/3 hrs**

Covers specific chemistry topics not discussed in any regular chemistry course at this level.

*Prereq: One 100-level chemistry course and department permission.*

**CHEM 281 Quantitative Analysis 4 hrs**

A lecture and laboratory course treating instrumental, gravimetric, and volumetric analysis, and equilibrium. Lecture: two hours per week. Laboratory: six hours per week.

*Prereq: CHEM 123-CHEM 124, or CHEM 125-CHEM 126.*

**CHEM 282 Honors Quantitative Analysis 4 hrs**

A lecture and laboratory course treating instrumental, trace, separation and characterization techniques. Lecture: two hours per week. Laboratory: six hours per week.

*Prereq: CHEM 123-CHEM 124, or CHEM 125-CHEM 126, and consent of Honors Committee.*

**CHEM 287/288/289 Cooperative Education in Chemistry 1/2/3 hrs**

Full- or part-time employment at an industrial, federal or state agency chemistry laboratory providing an applied experience in chemistry. Amount of credit granted determined by the nature of job responsibilities and/or duration of placement. Graded on a credit/no-credit basis. No credit granted toward chemistry degree programs, except with departmental permission.

*Prereq: CHEM 123-CHEM 124, or CHEM 125-CHEM 126. Admission by application only. Sophomore standing.*

**CHEM 297 Undergraduate Research in Chemistry 1 hr**

An independent, original endeavor involving laboratory and/or library study under the guidance of a chemistry faculty member. A formal written report is required at the end of the semester.

*Prereq: Department permission.*



**CHEM 340 Introduction to Industrial Chemistry** 3 hrs  
Discussion of the important aspects of the manufacture and chemistry of the major organic and inorganic chemicals and their use through commercially available products such as polymers. Includes environmental and economic aspects of industry. Lecture: three hours per week.  
*Prereq:* CHEM 123-CHEM 124, or CHEM 125-CHEM 126; CHEM 270 or CHEM 371-CHEM 372.

**CHEM 361 Fundamentals of Physical Chemistry** 3 hrs  
Calculus-based introduction to quantum mechanics, thermodynamics and kinetics. Serves as survey course for general curricula and major, and as the first course of the physical chemistry sequence in the professional curricula (CHEM 361, CHEM 365, CHEM 465). Lecture: three hours per week.  
*Prereq:* CHEM 123-CHEM 124 or CHEM 125-CHEM 126, MATH 120, PHY 223. *Co- or prereq:* PHY 222 or PHY 224; CHEM 372 and CHEM 281 recommended.

**CHEM 365 Physical Chemistry Laboratory** 2 hrs  
Determination of the physical properties of substances, rate studies and measurement of thermochemical properties. Emphasis on scientific report writing and oral presentation of work. Laboratory: six hours per week. "C-" or better in CHEM 361.  
*Prereq:* CHEM 281 and CHEM 361, PHY 223 and PHY 224.

**CHEM 371 Organic Chemistry I** 3 hrs  
The first semester of a two-semester sequence covering the general principles of organic chemistry for students specializing in science and those preparing for dentistry or medicine. Lecture: three hours per week. Not open to those with credit in CHEM 270.  
*Prereq:* CHEM 123-CHEM 124, or CHEM 125-CHEM 126.

**CHEM 372 Organic Chemistry II** 3 hrs  
A continuation of CHEM 371. CHEM 371 and CHEM 372 constitute the customary year of foundation/lecture work in organic chemistry. Lecture: three hours per week. "C-" or better in CHEM 371.  
*Prereq:* CHEM 371.

**CHEM 373 Organic Chemistry Laboratory** 2 hrs  
Covers the basic techniques involved in organic chemistry. Laboratory: six hours per week.  
*Prereq or coreq:* CHEM 372.

**CHEM 376 Honors Organic Chemistry Laboratory** 2 hrs  
Covers the basic techniques involved in organic chemistry for students of superior ability. The sequence of CHEM 371, CHEM 372, and CHEM 376 can constitute the customary year of organic chemistry. Laboratory: six hours per week.  
*Prereq or coreq:* CHEM 372 and consent of Honors Committee.

**CHEM 377/378/379 Special Topics** 1/2/3 hrs  
Covers specific chemical topics not discussed in any regular chemistry course at this level.  
*Prereq:* Department permission.

**CHEM 381 Instrumentation for Chemical Technology** 2 hrs  
A lecture and laboratory course that surveys various types of analytical instrumentation and their uses in chemical industry. Lecture: one hour per week. Laboratory: three hours per week.  
*Prereq:* CHEM 281, CHEM 270 or CHEM 372, and CHEM 271 or CHEM 373, or equivalent.

**CHEM 387/388/389 Cooperative Education in Chemistry** 1/2/3 hrs  
Full- or part-time employment at an industrial, federal or state agency chemistry laboratory providing an applied experience in chemistry. Amount of credit granted determined by the nature of job responsibilities and/or duration of placement. Graded on a credit/no-credit basis.

For junior-level students. No credit granted toward chemistry degree programs, except with department permission.  
*Prereq:* Junior standing.

**CHEM 397 Undergraduate Research in Chemistry** 1 hr  
An independent, original endeavor involving laboratory and/or library study, under the guidance of a chemistry faculty member. A formal written report is required at the end of the semester.  
*Prereq:* Department permission.

**CHEM 411 Toxicology I** 2 hrs  
An introduction to the principles and methods of toxicology. Special cases of toxic response including carcinogenesis, teratogenesis and mutagenesis, and the effects of radiation are discussed. Lecture: two hours per week.  
*Prereq:* CHEM 270 or CHEM 372.

**CHEM 412 Toxicology II** 2 hrs  
Discussion of the metabolism of toxicants and their effect on specific organ systems; specific classes of toxicants and legal aspects of toxicology. Lecture: two hours per week.  
*Prereq:* CHEM 411. *Biochemistry recommended.*

**CHEM 413 Toxicology Laboratory** 2 hrs  
A lecture and laboratory covering the techniques employed in a toxicology laboratory including methods of calculation, interpretation and presentation of experimental data. The theory and practical aspects of toxicological procedures will be discussed. Lecture: one hour per week. Laboratory: three hours per week.  
*Prereq:* CHEM 411. *CHEM 281 recommended.*

**CHEM 414 Regulatory Toxicology** 2 hrs  
This lecture course reviews the major environmental laws, building a framework for understanding their intent and application. Lecture: two hours per week.  
*Prereq:* CHEM 270 or CHEM 372.

**CHEM 415 Environmental Chemistry** 3 hrs  
A survey of environmental and energy-related problems and the ways in which chemistry may be applied to them. Important topics include air and water pollution, energy and other resources, solid wastes and recycling, and toxic chemicals. Lecture: three hours per week.  
*Prereq:* CHEM 123-CHEM 124, or CHEM 125-CHEM 126. *A course in organic chemistry and/or quantitative analysis recommended.*

**CHEM 432 Advanced Inorganic Chemistry** 3 hrs  
An advanced-level treatment of the newer inorganic chemical developments, with emphasis on theoretical advances in the interpretation of bonding and reactivity of inorganic compounds. Lecture: three hours per week.  
*Prereq:* CHEM 465 or department permission. *CHEM 232 also is recommended.*

**CHEM 433 Inorganic-Organic Synthesis Laboratory** 2 hrs  
Covers advanced preparative and analytical techniques of inorganic and organic chemistry including extensive use of IR, NMR, UV-visible and other instruments. Laboratory: six hours per week.  
*Prereq:* CHEM 281 and CHEM 373.

**CHEM 451 Biochemistry I** 3 hrs  
Chemistry of biologically significant compounds such as proteins, nucleic acids, carbohydrates and lipids. Enzymes are introduced, bioenergetics is discussed and the most central topics of metabolism are outlined. This course is intended as a one-semester survey of biochemistry for health science students and as the first semester of a two-semester sequence for chemistry, biology and toxicology students. Lecture: three hours per week.  
*Prereq:* CHEM 123-CHEM 124, or CHEM 125-CHEM 126, and CHEM 270 or CHEM 372, or equivalent.

**CHEM 452 Biochemistry II** 3 hrs  
Continues the survey of biochemistry begun in CHEM 451. Membranes and transport, enzyme kinetics, further topics in metabolism, replication, transcription, translation and regulation of cell processes are discussed. Lecture: three hours per week. "C-" or better in CHEM 451.  
*Prereq: CHEM 451.*

**CHEM 453 Biochemistry Laboratory** 2 hrs  
Emphasis on the special analytical techniques employed by biochemists, such as chromatography, electrophoresis, fluorimetry, spectrophotometry, and on laboratory report writing. Laboratory: four hours per week.  
*Prereq: CHEM 271 or CHEM 373, or equivalent and CHEM 281 strongly recommended. Coreq: CHEM 451 or CHEM 452.*

**CHEM 465 Quantum and Statistical Mechanics** 3 hrs  
The study of quantum mechanics and its application to atomic structure, molecular bonding and spectroscopy. An introduction to statistical mechanics and modern theories of the rate constant. Lecture: three hours per week.  
*Prereq: CHEM 361, MATH 223, MATH 325, PHY 223, PHY 224.*

**CHEM 475 Introduction to Polymer Chemistry** 3 hrs  
An emphasis on the organic chemistry involved in the preparation of synthetic high polymers. Topics include: chain-growth vinyl polymers, step-growth polymerization, copolymerization, cationic and anionic polymerization, and complex coordination catalysts. Lecture: three hours per week.  
*Prereq: CHEM 270 or CHEM 372.*

**CHEM 477/478/479 Special Topics** 1/2/3 hrs  
Covers specific chemistry topics not discussed in any regular chemistry courses at this level.  
*Prereq: Department permission.*

**CHEM 481 Instrumental Analysis** 4 hrs  
Theory and practice of chemical analysis and measurements and data processing by instrumental methods. Lecture: two hours per week. Laboratory: six hours per week.  
*Prereq: CHEM 281 and CHEM 365. Prereq or coreq: CHEM 465.*

**CHEM 485 Introduction to Radiotracer Techniques** 2 hrs  
Measurement of radiation and principles of radiation safety; experiments with emphasis on beta and gamma-ray counting and handling radioactivity. Lecture: one hour per week. Laboratory: three hours per week.  
*Prereq: CHEM 123-CHEM 124, or CHEM 125-CHEM 126, and either CHEM 281 or one science laboratory course above the 200 level, or department permission.*

**CHEM 487/488/489 Cooperative Education in Chemistry** 1/2/3 hrs  
Full- or part-time employment at an industrial, federal or state agency chemistry laboratory providing an applied experience in chemistry. Amount of credit granted determined by the nature of job responsibilities and/or duration of placement. Graded on a credit/no-credit basis. For senior-level students.

**CHEM 497/498/499 Undergraduate Research in Chemistry** 1/2/3 hrs  
Independent, original endeavors involving extensive library and/or laboratory study, under the guidance of a chemistry faculty member. A formal written report is required at the end of the semester.  
*Prereq: Department permission.*

## Communication and Theatre Arts

Web site: [www.emich.edu/public/cta/cta.html](http://www.emich.edu/public/cta/cta.html)

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**Professors:** Henry B. Aldridge, Dennis M. Beagen, P. George Bird, Gary L. Evans, Geoffrey Hammill, Annette Martin, Sally R. McCracken, James A. Robinson, Karen Smith-Meyer, Kenneth W. Stevens, Katherine Strand-Evans, Mary Ann Watson, Patricia Zimmer

**Associate Professors:** Wallace Bridges, John G. Cooper, Chris Foreman, Theresa Heck-Seibert, Kathleen Stacey, Michael A. Tew

**Assistant Professors:** Pirooz Aghssa, Doris Fields, Dennis Grady, Kerry Graves, Anita Rich, Lee Stille, Judy Sturgis-Hill

**Technical Support:** John Charles, EMU Theatre; Steve Martin, Broadcasting

The Communication and Theatre Arts Department 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 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.

### Degrees:

Bachelor of Science and Bachelor of Arts

### Programs of Study

#### Majors and Curricula:

Arts management curriculum  
Communication  
Comprehensive major in communication and theatre arts (Areas of concentration: communication, interpretation/performance studies, speech improvement, telecommunications and film, and theatre arts and educational drama)  
Interdisciplinary major in children's literature and drama/theatre for the young (administered by the English Department)  
Interdisciplinary major in public relations  
Speech for secondary education  
Telecommunications and film  
Theatre arts

#### Minors:

Communication  
Communication for elementary education  
Comprehensive minor in communication and theatre arts  
Comprehensive minor in communication and theatre arts for secondary, K-12, and special education-secondary  
Drama/theatre for the young  
Drama/theatre for the young for elementary and special education-elementary  
Musical theatre  
Telecommunications and film  
Theatre arts

**Joint program with the Interdisciplinary Technology Department:**

Communication technology curriculum

Advising is initiated by students with a personal adviser who shares the student's interests and objectives. Coordinators listed below should be consulted by each prospective major or minor student.

**Advising Coordinators:**

- Arts management curriculum: Kenneth Stevens
- Communication major and minor: Gary Evans, Sally McCracken
- Comprehensive major and minor for elementary and secondary education: Michael Tew, Patricia Zimmer, Judy Sturgis-Hill
- Communication technology curriculum: Henry B. Aldridge
- Comprehensive major and minor in communication and theatre arts: Michael Tew, Patricia Zimmer
- Drama/theatre for the young minor: Patricia Zimmer, Karen Smith-Meyer
- Interdisciplinary major in children's literature and drama/theatre for the young: Karen Smith-Meyer
- Interpretation/performance studies: Annette Martin
- Musical theatre minor: Kenneth Stevens
- Telecommunications and film major and minor: Geoffrey Hammill, Henry Aldridge
- Theatre arts major and minor: Katherine Strand-Evans, Terry Heck-Seibert

Graduate study leads to a master of arts in communication; a master of arts emphasizing interpretation/performance studies; a master of arts in drama/theatre for the young, 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 Communication and Theatre Arts Department, consult the graduate catalog.

**Arts Management Major**

**ISIS major code: CT01**

The arts management curriculum provides career training and practical experience for those with a passion for the arts and whose talents are in the field of administration and/or marketing. The arts manager not only must develop a variety of management skills but also must maintain a high degree of sensitivity to aesthetics.

Students are provided a broad background in all of the arts with an opportunity to study a specific art in more depth. Additionally, each student gains vital practical experience working in the arts during internships on the University campus and in an approved off-campus professional theatre or arts institution.

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 relatively new and rapidly changing, 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.

**Required courses:** ..... 23

*Arts fundamentals*

- #CTAR 150 Introduction to Theatre (satisfies general education requirement IV.4) ..... 3
- CTAR 155 Producing Theatre ..... 3
- #FA 107 Art History Survey I (satisfies general education requirement IV.4) ..... 3

- #FA 108 Art History Survey II (satisfies general education requirement IV.4) ..... 3
- #MUSC 107 Music Appreciation (satisfies general education requirement IV.4) ..... 2
- PEGN 161 Modern Dance ..... 1

*Media and arts management*

- CTAT 334 Radio-Television News ..... 3
- CTAR 452 Arts Management ..... 2
- JRNL 215 Journalism ..... 3

**Restricted electives:** ..... 8-12

Choose one course from each of the following areas:  
academic dance, art, music, theatre

**Recommended electives:** ..... 8-12

- CTAR 453 Marketing the Arts
- CTAR 454 Law, Public Policy, and the Arts
- A course in technical theatre

**Internships**

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.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/cta/ugrad/major/artman.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/cta/ugrad/major/artman.html).

**Total:** ..... 39 hours

*#Advising note:* 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.

**Communication Major**

**ISIS major code: CT02**

**Required courses:** ..... 23

- One of* (satisfies general education requirement I.2): ..... 2/3
  - #CTAS 121 Fundamentals of Speech (2)
  - #CTAS 124 Fundamentals of Speech (3)
- #CTAC 224 Public Speaking (satisfies general education requirement I.3) or CTAC 350 Persuasion ..... 3
- #CTAC 227 Interpersonal Communication (satisfies general education requirement I.3) ..... 3
- CTAC 354 Organizational Communication ..... 3
- CTAC 359 Small Group Communication ..... 3
- One of* (satisfies general education requirement I.3 and the cross-cultural/international studies requirement): .. 3
  - #CTAC 374 Intercultural Communication
  - #CTAC 375 Interracial/Interethnic Communication
- Choose two courses from the following: ..... 6
  - CTAC 440 Survey of Public Address (3)
  - CTAC 460 Theories of Speech Criticism (3)
  - CTAC 475 Research in Speech Communication (3)
  - CTAC 485 Theories of Speech Communication Behavior (3)

**Restricted electives:** ..... 12

Choose 12 hours from the list of restricted electives below that were not selected as the basic requirements:  
#CTAC 224 Public Speaking (satisfies general education requirement I.3) (3)

- #CTAC 225 Listening Behavior (satisfies general education requirement I.3) (3)  
 #CTAC 226 Nonverbal Communication (satisfies general education requirement I.3) (3)  
 CTAC 350 Persuasion (3)  
 CTAC 352 Communication in Negotiation (3)  
 CTAC 356 Argumentation and Debate (3)  
 CTAC 357 Interviewing as Communication (3)  
 CTAC 372 Assertive Communication (3)  
 CTAC 373 Family Communication (3)  
 #CTAC 374 Intercultural Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)  
 #CTAC 375 Interracial/Interethnic Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)  
 CTAC 379 Special Topics (3)  
 CTAC 440 Survey of Public Address (3)  
 CTAC 460 Theories of Speech Criticism (3)  
 CTAC 475 Research in Speech Communication (3)  
 CTAC 485 Theories of Speech Communication Behavior (3)  
 A maximum of six credit hours from the following courses:  
 CTAA 166/CTAA 266/CTAA 366/CTAA 466 Forensics (1/1/1/1)  
 CTAC 387/388/389 Cooperative Education in Communication (1/2/3)  
 CTAC 487/488/489 Internship in Communication (1/2/3)  
 CTAC 497/498/499 Independent Study (1/2/3)  
 Alternate courses (one course may be substituted for a restricted elective)  
 CTAO 205 Voice and Articulation (3)  
 #CTAO 210 Interpretative Reading (satisfies general education requirement IV.2) (3)  
 CTAT 241 Radio-Television-Film Announcing (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/cta/ugrad/major/comm.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/cta/ugrad/major/comm.html).

**Total:** ..... 35 hours

**#Advising note:** 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.

## Comprehensive Major in Communication and Theatre Arts

**ISIS major code: CT03**

The comprehensive major allows each student to develop a variety of communication skills with one or two areas of concentration (12-18 credit hours each). Within the 36 credit hours, at least six credit hours must be in 300- and 400-level courses. Majors should plan their course selections carefully with the departmental advising coordinator and present a copy of this plan to Academic Records and Certification when requesting senior checkout.

**Required core course:** ..... 2-3

One of (satisfies general education requirement I.2): ..... 2/3

- #CTAS 121 Fundamentals of Speech (3)  
 #CTAS 124 Fundamentals of Speech (3)

**Restricted electives:** ..... 15

Choose at least three credits in five of the six following concentrations (communication, interpretation/performance studies, speech improvement, telecommunications and film, theatre arts, drama/theatre for the young)

### Communication:

- #CTAC 224 Public Speaking (satisfies general education requirement I.3), #CTAC 227 Intrapersonal Communication (satisfies general education requirement I.3), CTAC 350 Persuasion, CTAC 356 Argumentation and Debate, CTAC 359 Small Group Communication

### Interpretation/performance studies:

- #CTAO 210 Interpretative Reading (satisfies general education requirement IV.2)

### Speech improvement:

- CTAO 102, CTAO 202, CTAO 302, CTAO 402 Voice Development (one credit each), CTAO 205 Voice and Articulation, CTAO 404 Dynamic Speaking Skills (department permission required)

### Telecommunications and film:

- CTAT 130 Introduction to Telecommunications and Film, CTAT 131 Introduction to Audio Production and Direction, CTAT 132 Introduction to Video Production and Direction, CTAT 141 Introduction to Radio-TV-Film Production, #CTAT 145 Introduction to Film Appreciation (satisfies general education requirement IV.4) (department permission required), CTAT 236 History and Criticism of Radio and Television, CTAT 241 Radio-Television-Film Announcing, CTAT 445 Film Theory and Criticism, CTAT 446 Contemporary Problems in Telecommunications

### Theatre arts and educational drama:

- #CTAR 150 Introduction to Theatre (satisfies general education requirement IV.4), #CTAR 151 African American Theatre: An Introduction (satisfies general education requirement IV.4 and the cross-cultural/international studies requirement), CTAR 152 Technical Theatre: Scenery and Lighting, CTAR 153 Technical Theatre: Costume and Makeup, CTAR 155 Producing Theatre, #CTAR 158 Fundamentals of Acting (satisfies general education requirement IV.4), #CTAR 222 Drama and Play in Human Experience (satisfies general education requirement IV.4), CTAR 251 African American Theatre: Creative Problems, CTAR 254 Stage Makeup, CTAR 322 Theatre for the Young, CTAR 323 Improvising and Role-Play, CTAR 327 Plays for the Young, CTAR 429 History and Theory of Developmental Drama/Theatre, CTAR 450 History of the Theatre to 1642, CTAR 451 History of the Theatre: 1642 to the Present

**Concentration:** ..... 9-15

Choose at least one concentration (above) in consultation with advising coordinator (credit hours here are in addition to the restricted electives above)

**Department electives:** ..... 3-10

Choose from any courses in areas outside the concentration

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/cta/ugrad/major/comp.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/cta/ugrad/major/comp.html).

**Total:** ..... 36 hours

**#Advising note:** 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.

## Telecommunications and Film Major

**ISIS major code: CT04**

**Required foundation courses:** ..... 11

- CTAT 130 Introduction to Telecommunications and Film ... 3  
 CTAT 131 Introduction to Audio Production and Direction ..... 2



- CTAT 132 Introduction to Video Production and Direction ..... 2
- Choose one course from the following: ..... 3
- #CTAT 145 Introduction to Film Appreciation (satisfies general education requirement IV.4) or CTAT 236 History and Criticism of Radio and Television
- Choose one of the following: ..... 1
- CTAA 165 Television Laboratory or CTAA 169 Radio Station WQBR

**Restricted electives:** ..... 16

Production courses: ..... 6  
 Choose six credits from the following (at least three credits must be at the 300 or 400 level):

- CTAT 231 Audio Recording Techniques, CTAT 241 Radio-Television-Film Announcing, CTAT 331 Fundamentals of Radio Production and Direction, CTAT 332 Fundamentals of Television Production and Direction, CTAT 333 Fundamentals of Film Production and Direction, CTAT 341 Radio-Television-Film Dramatic Performance, CTAT 431 Advanced Radio Production and Direction, CTAT 432 Advanced Television Production and Direction, CTAT 433 Advanced Film Production and Direction

Writing courses: ..... 3

Choose one course from the following:

- CTAT 334 Radio-Television News, CTAT 344 Continuity Writing for Radio-Television-Film, CTAR 360 Dramatic Composition

Theory courses: ..... 6

Choose six credits from the following (at least three credits must be at the 400 level):

- #CTAT 145 Introduction to Film Appreciation (satisfies general education requirement IV.4), CTAT 236 History and Criticism of Radio and Television, CTAT 335 Studies in Film, CTAT 336 Studies in Telecommunications, CTAT 445 Film Theory and Criticism, CTAT 446 Contemporary Problems in Telecommunications, CTAT 447 Radio-Television Station Management, CTAT 479 Special Topics (must be approved by adviser)

Internship or cooperative education: ..... 1-3

- CTAT 487/488/489 Internship in Radio-TV-Film, CTAT 387/388/389 Cooperative Education in Radio-TV-Film

**Electives:** ..... 3

Choose three credits from telecommunications and film and the remaining hours from communication and theatre arts (except CTAS 121 or CTAS 124 Fundamentals of Speech) or journalism.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/coa/cta/ugrad/major/telecom.html](http://www.emich.edu/public/catalogs/current/afac/colleges/coa/cta/ugrad/major/telecom.html).

**Total:** ..... 30 hours

#Advising note: This course satisfies both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

## Theatre Arts Major

ISIS major code: CT05

**Required courses:** ..... 31

- #CTAR 150 Introduction to Theatre (satisfies general education requirement IV.4) ..... 3  
 (may be bypassed by examination or interview for no credit)

- CTAR 152 Technical Theatre: Scenery and Lighting ..... 2
- CTAR 153 Technical Theatre: Costume and Makeup ..... 2
- CTAR 155 Producing Theatre ..... 3
- #CTAR 158 Fundamentals of Acting (satisfies general education requirement IV.4) ..... 3
- CTAR 355 Play Direction ..... 3
- CTAR 450 History of the Theatre to 1642 ..... 3
- CTAR 451 History of the Theatre: 1642 to the Present ..... 3
- CTAA 167 and either CTAA 267/CTAA 367/CTAA 467 Theatre Practice ..... 2
- CTAR 458 Problems in Modern Theatre ..... 3
- CTAR 459 Problems in Premodern Theatre ..... 2
- CTAR 496 Senior Seminar ..... 2

**Restricted electives:** ..... 5

Choose from any Theatre course except CTAR 106

Other courses that qualify as electives are:

- Drama/Theatre for the Young (CTAR 322 Theatre for the Young or CTAR 323 Improvising and Role-Play)
- Oral Interpretation (CTAO 314 Interpretation of Drama or CTAO 410 Oral Interpretation of Shakespeare)
- Telecommunications and Film (CTAT 332 Fundamentals of Television Production and Direction or CTAT 341 Radio-Television-Film Dramatic Performance)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/coa/cta/ugrad/major/theat.html](http://www.emich.edu/public/catalogs/current/afac/colleges/coa/cta/ugrad/major/theat.html).

**Total:** ..... 36 hours

#Advising note: 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.

## Comprehensive Major in Communication and Theatre Arts

### Secondary Teacher Certification

ISIS major code: CT33

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 certification test covering this field is #04, "Speech."

**Teaching Major** ..... 36

**Required core course**

One of (satisfies general education requirement I.2): ..... 2/3

- #CTAS 121 Fundamentals of Speech (2)
- #CTAS 124 Fundamentals of Speech (3)

**Restricted electives**

Choose at least three credits in four of the five following concentrations.

*Interpretation/performance studies*

- #CTAO 210 Interpretative Reading (satisfies general education requirement IV.2) (3)

*Speech Improvement*

- CTAO 102, CTAO 202, CTAO 302, CTAO 402 Voice Development (one credit each)
- CTAO 205 Voice and Articulation (3)
- CTAO 404 Dynamic Speaking Skills (3) (department permission required)

*Telecommunications and Film*

One of:

- CTAT 130 Introduction to Telecommunications and Film (3)



- CTAT 131 Introduction to Audio Production and Direction (3)  
 CTAT 132 Introduction to Video Production and Direction (3)  
 CTAT 141 Introduction to Radio-TV-Film Production (3)  
 #CTAT 145 Introduction to Film Appreciation (satisfies general education requirement IV.4) (3) (department permission required)  
 CTAT 236 History and Criticism of Radio and Television (3)  
 CTAT 241 Radio-Television-Film Announcing (3)  
 CTAT 445 Film Theory and Criticism (3)  
 CTAT 446 Contemporary Problems in Telecommunications (3)

#### Theatre Arts and Educational Drama

One of:

- #CTAR 150 Introduction to Theatre (satisfies general education requirement IV.4) (3)  
 #CTAR 151 African American Theatre: An Introduction (satisfies general education requirement IV.4 and the cross-cultural/international studies requirement) (3)  
 CTAR 152 Technical Theatre: Scenery and Lighting (3)  
 CTAR 153 Technical Theatre: Costume and Makeup (3)  
 CTAR 155 Producing Theatre (3)  
 #CTAR 158 Fundamentals of Acting (satisfies general education requirement IV.4) (3)  
 #CTAR 222 Drama and Play in Human Experience (satisfies general education requirement IV.4) (3)  
 CTAR 251 African American Theatre: Creative Problems (3)  
 CTAR 254 Stage Makeup (3)  
 CTAR 322 Theatre for the Young (3)  
 CTAR 323 Improvising and Role-Play (3)  
 CTAR 327 Plays for the Young (3)  
 CTAR 429 History and Theory of Developmental Drama/Theatre (3)  
 CTAR 450 History of the Theatre to 1642 (3)  
 CTAR 451 History of the Theatre: 1642 to the Present (3)

#### Concentration

Choose either one of the above concentrations or the following in consultation with the advising coordinator.

#### Communication

- #CTAC 224 Public Speaking (satisfies general education requirement I.3) (3)  
 #CTAC 227 Interpersonal Communication (satisfies general education requirement I.3) (3)  
 CTAC 350 Persuasion (3)  
 CTAC 356 Argumentation and Debate (3)  
 CTAC 359 Small Group Communication (3)

#### Department electives

Choose from any courses in areas outside the concentration. The number of courses chosen must bring the total credit hours for the major to no less than 30 hours (including courses that satisfy general education).

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/cta/ugrad/major/comp\\_t.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/cta/ugrad/major/comp_t.html).

*#Advising note:* 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.

## Communication Minor

ISIS minor code: CT02

- One of* (satisfies general education requirement I.2): ..... 2/3  
 #CTAS 121 Fundamentals of Speech (2)  
 #CTAS 124 Fundamentals of Speech (3)  
 #CTAC 224 Public Speaking (satisfies general education requirement I.3) or CTAC 350 Persuasion ..... 3  
 #CTAC 227 Interpersonal Communication (satisfies general education requirement I.3) ..... 3  
 CTAC 354 Organizational Communication ..... 3  
 CTAC 359 Small Group Communication ..... 3  
*One of* (satisfies general education requirement I.3 and the cross-cultural/international studies requirement): .. 3  
 #CTAC 374 Intercultural Communication  
 #CTAC 375 Interracial/Interethnic Communication  
 Choose one course from the following: ..... 3  
 CTAC 440 Survey of Public Address (3)  
 CTAC 460 Theories of Speech Criticism (3)  
 CTAC 475 Research in Speech Communication (3)  
 CTAC 485 Theories of Speech Communication Behavior (3)

**Total:** ..... 20-21 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Comprehensive Minor in Communication and Theatre Arts

ISIS minor code: CT04

**Required core course:** ..... 2-3

- One of* (satisfies general education requirement I.2): ..... 2/3  
 #CTAS 121 Fundamentals of Speech (2)  
 #CTAS 124 Fundamentals of Speech (3)

**Restricted electives:** ..... 12

Choose at least three credits in four of the six areas of concentration (communication, interpretation/performance studies, speech improvement, telecommunications and film, and theatre arts and educational drama)

See courses listed in comprehensive major in communication and theatre arts, page 72.

**Concentration:** ..... 6-9

Choose at least one area of concentration.

**Department electives:** ..... 0-4

Choose from any courses in areas outside the concentration

**Total:** ..... 20-28 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Drama/Theatre for the Young Minor

ISIS minor code: CT03

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 and student affairs practice, 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:** ..... 14-15

- One of (satisfies general education requirement I.2): ..... 2/3
  - #CTAS 121 Fundamentals of Speech (2)
  - #CTAS 124 Fundamentals of Speech (3)
- #CTAR 222 Drama and Play in Human Experience (satisfies general education requirement IV.4) ..... 3
- CTAR 322 Theatre for the Young ..... 3
- CTAR 323 Improvising and Role-Play ..... 3
- CTAR 324 Oral Interpretation of Literature for the Young ..... 3

**Electives:** ..... 5-6

- Choose five to six credits from the following:
- CTAR 326 Developmental Drama/Theatre with the Handicapped, CTAR 327 Plays for the Young, CTAR 429 History and Theory of Developmental Drama/Theatre, CTAR 504 Oral Interpretation of Literature and Language with the Young, CTAR 522 TIE: Theatre-in-Education, CTAR 523 Puppetry: Catalyst in Human Development, CTAR 524 Developmental Drama/Theatre with Handicapped Persons, CTAR 525 Developmental Drama/Theatre in Recreational Settings, CTAR 528 Developmental Drama/Theatre in Religion, CTAR 565 Studies in Drama/Theatre for the Young (all 500-level courses are available for undergraduate credit to qualified seniors)
  - CTAA 168/268/368/468 Interpretation
  - CTAR 377/378/379 Special Topics
  - CTAR 477/478/479 Special Topics: Touring to Young Audiences
  - CTAR 497/498/499 Independent Study
  - LITR 207 Introduction to Children's Literature or any course in dramatic literature or any communication or theatre arts course

**Total:** ..... 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Musical Theatre Minor

**ISIS minor code: CT07**

**Required courses:** ..... 6

Choose four credits of applied music-voice and two credit hours of ensemble performance voice courses

**Restricted electives:** ..... 18

Choose eight credits from the theatre arts area, four credits from the dance area, and six credits from the music area.

*Theatre Arts:*

- CTAR 155 Producing Theatre, CTAR 258 Mime/Pantomime and Mask, CTAR 457 Audition, CTAR 461 Musical Theatre Acting, CTAR 462 Directors on Directing, CTAR 463 The American Musical Stage

*Dance:*

- \* PEGN 155 Jazz I, PEGN 159 Tap Dancing, PEGN 160 Ballet, PEGN 161 Modern Dance, PEGN 255 Jazz II, PEGN 261 Intermediate Modern Dance

*Music:*

- MUSC 101 Music Theory I, MUSC 104 Elements of Music, MUSC 305 Keyboard Skills, MUSC 326 Conducting

**Total:** ..... 24 hours

## Telecommunications and Film Minor

**ISIS minor code: CT05**

**Required foundation courses:** ..... 7

- CTAT 130 Introduction to Telecommunications and Film ... 3
- CTAT 131 Introduction to Audio Production and Direction ..... 2
- CTAT 132 Introduction to Video Production and Direction ..... 2

**Restricted electives:** ..... 13

Choose one of the following:  
 #CTAT 145 Introduction to Film Appreciation (satisfies general education requirement IV.4) or CTAT 236 History and Criticism of Radio and Television

Choose one of the following:  
 CTAA 165 Television Laboratory or CTAA 169 Radio Station WQBR /

Choose three credits from each group of the area courses listed under the major (page 73) in production, writing and theory

**Electives:** ..... 4

Choose three credits from telecommunications and film and the remaining hours from communication and theatre arts (except CTAS 121 or CTAS 124 Fundamentals of Speech) or journalism.

**Total:** ..... 24 hours

*#Advising note:* This course satisfies both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

## Theatre Arts Minor

**ISIS minor code: CT06**

**Required courses:** ..... 18

- #CTAR 150 Introduction to Theatre (satisfies general education requirement IV.4) ..... 3  
(may be bypassed by examination or interview, for no credit)
- CTAR 152 Technical Theatre: Scenery and Lighting ..... 2
- CTAR 155 Producing Theatre ..... 3
- #CTAR 158 Fundamentals of Acting (satisfies general education requirement IV.4) ..... 3
- CTAR 355 Play Direction ..... 3
- CTAR 450 History of the Theatre to 1642 or CTAR 451 History of the Theatre: 1642 to the Present ..... 3
- CTAA 167 Theatre Practice ..... 1

**Electives:** ..... 2-5

Choose courses beyond the 100 level in theatre arts or in other departmental areas specified under the major (see page 73).

**Total:** ..... 20-24 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Communication Minor**

Elementary and Special Education-Elementary Teacher Certification

**ISIS minor code: CT31**

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 certification test covering this field is #04, "Speech."

- One of* (satisfies general education requirement I.2): ..... 2/3  
 #CTAS 121 Fundamentals of Speech (2)  
 #CTAS 124 Fundamentals of Speech (3)  
 #CTAC 224 Public Speaking (satisfies general education requirement I.3) or CTAC 350 Persuasion ..... 3  
 CTAC 227 Interpersonal Communication ..... 3  
 CTAC 354 Organizational Communication ..... 3  
 CTAC 359 Small Group Communication ..... 3  
*One of* (satisfies general education requirement I.3 and the cross-cultural/international studies requirement): .. 3  
 #CTAC 374 Intercultural Communication  
 #CTAC 375 Interracial/Interethnic Communication  
 Choose one course from the following: ..... 3  
 CTAC 440 Survey of Public Address (3)  
 CTAC 460 Theories of Speech Criticism (3)  
 CTAC 475 Research in Speech Communication (3)  
 CTAC 485 Theories of Speech Communication Behavior (3)

**Total: ..... 20 hours**

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Comprehensive Minor in Communication and Theatre Arts**

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

**ISIS minor code: CT34**

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 certification test covering this field is #04, "Speech."

- One of* (satisfies general education requirement I.2): ..... 2/3  
 #CTAS 121 Fundamentals of Speech (2)  
 #CTAS 124 Fundamentals of Speech (3)  
 Choose at least three credits in four of the six areas of concentration (communication, interpretation/performance studies, speech improvement, telecommunications and film, and theatre arts and educational drama).  
 6-9 hours additional hours from speech communication or theatre arts  
 0-4 hours in department courses outside of speech communication or theatre arts

**Total: ..... 20 hours**

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Drama/Theatre for the Young Minor**

Elementary and Special Education-Elementary Teacher Certification

**ISIS minor code: CT33**

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 certification test covering this field is #04, "Speech."

- One of* (satisfies general education requirement I.2): ..... 2/3  
 #CTAS 121 Fundamentals of Speech (2)  
 #CTAS 124 Fundamentals of Speech (3)  
 #CTAR 222 Drama and Play in Human Experience (satisfies general education requirement IV.4) ..... 3  
 CTAR 322 Theatre for the Young ..... 3  
 CTAR 323 Improvising and Role-Play ..... 3  
 CTAR 324 Oral Interpretation of Literature for the Young ..... 3

If CTAS 121 is in the program, choose six hours; if CTAS 124 is in the program, choose five hours; from the following:

- CTAR 326 Developmental Drama/Theatre with the Handicapped (2)  
 CTAR 327 Plays for the Young (3)  
 CTAR 429 History and Theory of Developmental Drama/Theatre (3)  
 CTAR 504, CTAR 522, CTAR 523, CTAR 524, CTAR 525, CTAR 528, CTAR 565 (graduate courses open to qualified seniors)  
 CTAA 168/268/368/468 Interpretation (1 each)  
 CTAR 377/378/379 Special Topics (1/2/3)  
 CTAR 477/478/479 Special Topics: Touring to Young Audiences (1/2/3)  
 CTAR 497/498/499 Independent Study (1/2/3)  
 \*\*LITR 207 Introduction to Children's Literature (3)  
 Any course in dramatic literature  
 Any communication course  
 Any theatre arts course

*\*\*Elementary education professional requirement.*

**Total: ..... 20 hours**

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Activity Courses**

**CTAA 165 Television Laboratory** **1 hr**  
 Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.  
*Prereq: CTAT 130, CTAT 131, and CTAT 132; or department permission.*

**CTAA 166 Forensics** **1 hr**  
 Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.  
*Prereq: Department permission.*

**CTAA 167 Theatre Practice****1 hr**

Students participating in specific positions with major responsibility in productions of the EMU Theatre, the department's instructional activity program in theatre arts, by prior permission of the department, may receive one hour of credit during a single semester. The specified positions and prerequisites are: Heading a major technical crew for a faculty-directed production.

*Prereq: CTAR 155, CTAR 152 or CTAR 252 plus previous experience on a similar crew for at least one EMU Theatre production.*

**CTAA 168 Interpretation****1 hr**

Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities and the credit may be earned in one activity or in several activities. Admission to the activity does not ensure credit. (Available with a focus on oral interpretation of literature for the young.)

*Prereq: CTAO 210 or department permission.*

**CTAA 169 Radio Station WQBR****1 hr**

Students who participate in co-instructional programs may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities, and the credits may be earned in one activity or in several activities. Admission to the activity does not ensure credit.

*Prereq: CTAT 130, CTAT 131 and CTAT 132; or department permission.*

**CTAA 177/178/179 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CTAA 265 Television Laboratory****1 hr**

Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.

*Prereq: CTAT 130, CTAT 131 and CTAT 132; or department permission.*

**CTAA 266 Forensics****1 hr**

Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.

*Prereq: Department permission.*

**CTAA 267 Theatre Practice****1 hr**

Students participating in specific positions with major responsibility in productions of the EMU Theatre, the department's instructional activity program in theatre arts, by prior permission of the department, may receive one hour of credit during a single semester. The specified positions and prerequisites are: Assistant directing and/or stage managing a faculty-directed production.

*Prereq: CTAA 167 and CTAR 355.*

**CTAA 268 Interpretation****1 hr**

Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities and the credit may be earned in one activity or in several activities. Admission to the activity does not ensure credit. (Available with a focus on oral interpretation of literature for the young.)

*Prereq: CTAO 210 or department permission.*

**CTAA 269 Radio Station WQBR****1 hr**

Students who participate in co-instructional programs may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities, and the credits may be earned in one activity or in several activities. Admission to the activity does not ensure credit.

*Prereq: CTAT 130, CTAT 131 and CTAT 132; or department permission.*

**CTAA 277/278/279 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CTAA 365 Television Laboratory****1 hr**

Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.

*Prereq: CTAT 130, CTAT 131 and CTAT 132; or department permission.*

**CTAA 366 Forensics****1 hr**

Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.

*Prereq: Department permission.*

**CTAA 367 Theatre Practice****1 hr**

Students participating in specific positions with major responsibility in productions of the EMU Theatre, the department's instructional activity program in theatre arts, by prior permission of the department, may receive one hour of credit during a single semester. The specified positions and prerequisites are: Directing an Experimental Series production.

*Prereq: CTAA 167 and CTAR 355.*

**CTAA 368 Interpretation****1 hr**

Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities and the credit may be earned in one activity or in several activities. Admission to the activity does not ensure credit. (Available with a focus on oral interpretation of literature for the young.)

*Prereq: CTAO 210 or department permission.*

**CTAA 369 Radio Station WQBR****1 hr**

Students who participate in co-instructional programs may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities, and the credits may be earned in one activity or in several activities. Admission to the activity does not ensure credit.

*Prereq: CTAT 130, CTAT 131 and CTAT 132; or department permission.*

**CTAA 377/378/379 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CTAA 465 Television Laboratory****1 hr**

Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one



hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.

*Prereq: CTAT 130, CTAT 131 and CTAT 132; or department permission.*

**CTAA 466 Forensics** **1 hr**

Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.

*Prereq: Department permission.*

**CTAA 467 Theatre Practice** **1 hr**

Students participating in specific positions with major responsibility in productions of the EMU Theatre, the department's instructional activity program in theatre arts, by prior permission of the department, may receive one hour of credit during a single semester. The specified positions and prerequisites are: Additional experience in the responsibilities listed for 367.

*Prereq: CTAA 167, CTAA 267 or CTAA 367.*

**CTAA 468 Interpretation** **1 hr**

Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities and the credit may be earned in one activity or in several activities. Admission to the activity does not ensure credit. (Available with a focus on oral interpretation of literature for the young.)

*Prereq: CTAO 210 or department permission.*

**CTAA 469 Radio Station WQBR** **1 hr**

Students who participate in co-instructional programs may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities, and the credits may be earned in one activity or in several activities. Admission to the activity does not ensure credit.

*Prereq: CTAT 130, CTAT 131, and CTAT 132; or department permission.*

**CTAA 477/478/479 Special Topics** **1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

### Communication Courses

**CTAC 177/178/179 Special Topics** **1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

**CTAC 224 Public Speaking** **3 hrs**

The characteristics of various types of speeches and speech situations and practice in the preparation and delivery of speeches for various occasions.

*Prereq: CTAS 121 or CTAS 124.*

**CTAC 225 Listening Behavior** **3 hrs**

The study of the behavior, processes and theory of human listening; practice in improving listening skills.

*Prereq: CTAS 121 or CTAS 124.*

**CTAC 226 Nonverbal Communication** **3 hrs**

An examination of nonverbal and situational behaviors, relationships, objects and events surrounding speech communication acts.

*Prereq: CTAS 121 or CTAS 124.*

**CTAC 227 Interpersonal Communication** **3 hrs**

Study and practice of the basic elements of interpersonal communication with emphasis on perception, meanings, attention, listening, feedback and communication barriers. Particular attention is given to improving interpersonal communication skills. This course may not substitute as the fundamentals of speech requirement in general education.

*Prereq: CTAS 121 or CTAS 124.*

**CTAC 277/278/279 Special Topics** **1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

**CTAC 307 The Teaching of Speech** **3 hrs**

Emphasizes the analysis and construction of courses of study, evaluation of textbooks and teaching materials, methods of directing co-curricular speech activities, and demonstrations of teaching methods. Required of students majoring in communication and theatre arts in the junior or senior high school teaching curriculum. *Does not count toward the major or minor. Not open to students on academic probation.*

*Prereq: Four courses in communication and theatre arts.*

**CTAC 350 Persuasion** **3 hrs**

The study of the basic elements inherent in persuasion; the analysis of representative persuasive speeches; practice in securing the acceptance of ideas through psychological appeals as well as logical reasoning.

*Prereq: CTAS 121 or CTAS 124.*

**CTAC 352 Communication in Negotiation** **3 hrs**

Practical communication skills for negotiating a labor union collective bargaining agreement and effective grievance handling.

*Prereq: CTAS 121 or CTAS 124, or department permission.*

**CTAC 354 Organizational Communication** **3 hrs**

An investigation of information patterns and persuasion in the formal organization.

*Prereq: CTAS 121 or CTAS 124.*

**CTAC 356 Argumentation and Debate** **3 hrs**

Emphasizes the principles of logical reasoning and oral presentation of reasoned discourse in group situations. Exercise in debate and in general argumentative speaking.

*Prereq: CTAS 121 or CTAS 124.*

**CTAC 357 Interviewing as Communication** **3 hrs**

The principles and practices of the interview as they relate to communication elements; the interview process, structure, functions and techniques explored from both the perspective of the interviewer and the interviewee.

*Prereq: CTAS 121 or CTAS 124, or department permission.*

**CTAC 359 Small Group Communication** **3 hrs**

Emphasizes the principles and practice of discussion as employed in committees, panels, symposiums and forums. Students will plan and participate in discussions of contemporary problems.

*Prereq: CTAS 121 or CTAS 124.*

**CTAC 372 Assertive Communication** **3 hrs**

Individualized approach to study and training in effective assertive communication for social, conversational and career-oriented situations.

*Prereq: CTAS 121 or CTAS 124, or department permission.*

**CTAC 373 Family Communication** **3 hrs**

Descriptive and theoretical study of communication in families with emphasis on the influence of family communication on individuals.

*Prereq: CTAS 121 or CTAS 124 and CTAC 227.*

**CTAC 374 Intercultural Communication** **3 hrs**

Analysis of processes and problems of communication as affected by national cultures; effects of differences in verbal and nonverbal communication, values, meaning, perception and thought.

*Prereq: CTAS 121 or CTAS 124, or department permission.*

**CTAC 375 Interracial/Interethnic Communication** 3 hrs  
The analysis of how ethnocentric attitudes toward perceived racial/ethnic minority group speakers/listeners influence interpersonal communication transactions.  
*Prereq: CTAS 121 or CTAS 124.*

**CTAC 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

**CTAC 387/388/389 Cooperative Education in Communication** 1/2/3 hrs  
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.  
*Prereq: Nine credit hours in concentration, approval by cooperative education office, and department permission.*

**CTAC 440 Survey of Public Address** 3 hrs  
An historical and critical study of the more important speakers and their speeches from classical Greek and Roman times to the present with reference to social and political movements in the world's history.  
*Prereq: Three courses in communication, junior standing, or department permission.*

**CTAC 460 Theories of Speech Criticism** 3 hrs  
A study of the theoretical and critical works from various eras of western culture.  
*Prereq: Three courses in communication, junior standing, or department permission.*

**CTAC 475 Research in Speech Communication** 3 hrs  
An examination of methods currently employed in speech communication, as well as a review of the many types of application now being made. Course includes analysis of speech communication behavior.  
*Prereq: Three courses in communication, junior standing, or department permission.*

**CTAC 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

**CTAC 485 Theories of Speech Communication Behavior** 3 hrs  
Study of theories that have made significant contributions to understanding of speech communication behavior.  
*Prereq: Three courses in communication, junior standing, or department permission.*

**CTAC 487/488/489 Internship in Communication** 1/2/3 hrs  
One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities.  
*Prereq: 20 credit hours of concentration courses and department permission.*

**CTAC 497/498/499 Independent Study** 1/2/3 hrs  
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.  
*Prereq: Department permission.*

### Interpretation/Performance Studies Courses

**CTAO 102 Voice Development** 1 hr  
A laboratory for developing strength and control of the speaking voice through physical and tonal exercises and choral speaking. Two regularly scheduled hours each week and additional sessions as arranged.

**CTAO 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**CTAO 202 Voice Development** 1 hr  
Advanced laboratory exercises and specialized projects: Pronouncing foreign terms for professional speaking.  
*Prereq: CTAO 102 or department permission.*

**CTAO 205 Voice and Articulation** 3 hrs  
An introductory course for improving personal speaking habits. Emphasis is placed on regular practice to develop relaxed tone support, efficient articulation and vocal variety. Recording and listening laboratory hours arranged.  
*Prereq: CTAS 121 or CTAS 124, or department permission.*

**CTAO 210 Interpretative Reading** 3 hrs  
The fundamentals of oral interpretation; developing poise and ease before an audience, a clear, forceful and flexible voice, and discrimination in interpreting thought to others. Selections will be prepared and presented in class.  
*Prereq: CTAS 121 or CTAS 124.*

**CTAO 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**CTAO 302 Voice Development** 1 hr  
Advanced laboratory exercises and specialized projects: Energetic vocal skills for theatre/interpretation.  
*Prereq: CTAO 102 or department permission.*

**CTAO 311 Interpretation of Prose** 3 hrs  
The application of the fundamentals of oral interpretation to the reading of prose with emphasis on the short story and excerpts from longer works of fiction. Special attention given to problems involved in the interpretation of prose.  
*Prereq: CTAO 210.*

**CTAO 314 Interpretation of Drama** 3 hrs  
Specific problems involved in interpreting dramatic literature. Emphasis placed on selection of materials, cutting and arrangement of materials, dialogue, characterization and character placement. Students will work individually and collectively in interpreting scenes from plays.  
*Prereq: CTAO 210 or department permission.*

**CTAO 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**CTAO 387/388/389 Cooperative Education in Oral Interpretation** 1/2/3 hrs  
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.  
*Prereq: Nine credit hours in concentration, approval by Cooperative Education Office, and department permission.*

**CTAO 402 Voice Development** 1 hr  
Advanced laboratory exercises and specialized projects: Skills, theory and individualized projects.  
*Prereq: CTAO 102 or department permission.*

**CTAO 404 Dynamic Speaking Skills 3 hrs**

Projects emphasizing intensive application of voice and articulation theory and professional diction standards for actors, broadcasters, educators, forensic speakers, interpreters and other professional communicators. Laboratory hours arranged.

*Prereq: Three courses in the department including either CTAO 102<sup>1</sup> or CTAO 205, or take CTAO 402 concurrently.*

**CTAO 405 Voice and Dialects 3 hrs**

Advanced projects in preparing oral presentations and characterizations in regional and foreign dialects.

*Prereq: CTAO 102 or CTAO 402 or CTAO 205, or department permission.*

**CTAO 410 Oral Interpretation of Shakespeare 3 hrs**

Specific problems involved in the oral interpretation of Shakespeare. Emphasis placed on language style and characterization problems. Students work individually and collectively in orally interpreting selections from Shakespeare's works.

*Prereq: CTAO 210 and two courses in literature, one of which should be either LITR 210 or LITR 103, or department permission.*

**CTAO 411 Advanced Problems in Interpretation 3 hrs**

The presentation of programs of some length and difficulty in prose, poetry and drama. Emphasis on programming, styles of interpretation, choral reading and experimental work. A public program will be presented by the class.

*Prereq: Six hours of oral interpretation or department permission.*

**CTAO 412 Oral Interpretation of Poetry 3 hrs**

The application of the principles of oral interpretation to the reading of poetry, with emphasis on modern and contemporary poetry.

*Prereq: CTAO 210.*

**CTAO 477/478/479 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CTAO 487/488/489 Internship in Interpretation 1/2/3 hrs**

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities.

*Prereq: 20 credit hours of concentration courses and department permission.*

### Theatre and Educational Drama Courses

**CTAR 106 Introduction to the Performing Arts 3 hrs**

A survey of the arts of dance, theatre and music, developing an understanding and appreciation of representative works in the three fields. The place of these arts in contemporary society and their contribution to a richer life receive special emphasis. Attendance required at specific on-campus performances. *Not open to those with credit in MUSC 106/DANC 106.*

**CTAR 150 Introduction to Theatre 3 hrs**

A lecture-demonstration course with the purpose of fostering appreciation of theatre through an understanding of its production components, its forms and styles, and its historical development. Attendance required at select EMU theatre productions. Required of theatre arts majors and minors.

**CTAR 151 African American Theatre: An Introduction 3 hrs**

An introductory survey of the roots, purposes and contemporary manifestations of theatre and drama reflecting the African American experience. Emphasis will be placed on the reading, analysis and discussion of representative African American plays.

**CTAR 152 Technical Theatre: Scenery and Lighting 2 hrs**

The comprehensive study and application of design fundamentals and basic technology for theatrical scenery and lighting.

**CTAR 153 Technical Theatre: Costume and Makeup 2 hrs**

The comprehensive study and application of design fundamentals and basic technology for theatrical costuming and makeup.

**CTAR 155 Producing Theatre 3 hrs**

A comprehensive introduction to theatrical production organization: business management, direction and technical production. Laboratory hours by appointment.

*Prereq: CTAR 150 strongly recommended for majors and minors.*

**CTAR 157 Beginning Acting 3 hrs**

This course is designed for non-theatre majors desiring basic knowledge and practice of acting skills as related to the stage. Non-majors will gain experience in self-awareness, relationships, character analysis, improvisation, scene study and acting exercises. Attention will be given to overcoming stage fright. For non-theatre majors only.

**CTAR 158 Fundamentals of Acting 3 hrs**

A study of the fundamental theories and techniques of acting. Major emphasis on theatre acting, but consideration given to radio and television acting. Laboratory hours by arrangement.

**CTAR 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

**CTAR 222 Drama and Play in Human Experience 3 hrs**

A study of dramatic experience as intrinsic in human development. An introduction to spontaneous dramatic games and exercises as a way of sharpening imagination, deepening interpersonal relations, and strengthening individual identity. Integration of such experience in learning and growth is emphasized.

**CTAR 251 African American Theatre: Creative Problems 3 hrs**

A practical consideration of those creative aspects of the theatre production particular to African American theatre. Emphasis will be placed on the presentation of scenes from African American theatre.

**CTAR 252 Stagecraft 3 hrs**

A study and application of the technical elements of play production with emphasis on stage mechanics, construction and scene painting. Laboratory hours will be arranged in order to ensure adequate practical experience in the scenic arts and crafts.

*Prereq: CTAR 155 strongly recommended for department majors and minors.*

**CTAR 254 Stage Makeup 1 hr**

The theory and techniques of theatrical makeup. Laboratory hours to be arranged.

**CTAR 258 Mime/Pantomime and Mask 3 hrs**

A performance-oriented survey of techniques, styles, history and theory of the silent performing arts of mime/pantomime and mask. Physical preparation, preparation of production materials, scripting and actual performance.

**CTAR 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

**CTAR 322 Theatre for the Young 3 hrs**

An introductory study of the development, philosophy and techniques of theatre for the young.

**CTAR 323 Improvising and Role-Play 3 hrs**

Exploration of spontaneous dramatic play through intensive exercise and dramatic games meant to generate greater individual freedom and self-discipline, as well as to expand resources and techniques for teaching and directing.

- CTAR 324 Oral Interpretation of Literature for the Young** 3 hrs  
Selection and evaluation of literature for oral interpretation with and for young people. Focus is on the use of narrative prose and folktales.
- CTAR 326 Developmental Drama/Theatre with the Handicapped** 2 hrs  
Study of principles, theories and practices of developmental drama/theatre as related to handicapped persons. Application to educational, recreational and institutional settings stressed.
- CTAR 327 Plays for the Young** 3 hrs  
A study of dramatic literature for the young from developmental and artistic viewpoints in the total educational experience of children and adolescents.
- CTAR 351 Scene Design** 3 hrs  
The history of design in terms of stage scenery; an investigation of current trends, techniques and media of scene design and the practical execution of models and sketches by the student.  
*Prereq: CTAR 152, CTAR 252, CTAR 155, or department permission.*
- CTAR 355 Play Direction** 3 hrs  
An intensive study of the process of directing plays. Whenever possible, students in the course will direct a one-act play for public presentation. Laboratory hours by arrangement.  
*Prereq: CTAR 155 or department permission.*
- CTAR 358 Characterization** 3 hrs  
The creation of character and characterization by the actor. Analysis, development and performance of roles studied in depth.  
*Prereq: CTAR 157 or CTAR 158.*
- CTAR 360 Dramatic Composition** 3 hrs  
An examination of the elements of dramatic structure through the analysis and composition of works of varying scope. Emphasis on adult plays for the stage; the special problems of drama for children and for the various broadcast media also considered.  
*Prereq: CTAR 155 or department permission.*
- CTAR 361 Dramatic Writing** 2 hrs  
Intensive concentration on the writing of a significant example of adult or children's drama for the stage or the broadcast media.  
*Prereq: CTAR 360 or department permission.*
- CTAR 362 Stage Lighting** 2 hrs  
Stage lighting; historical development, basic electrical theory, switchboards and lighting instruments, color theory, principles and practices in stage lighting. Laboratory hours to be arranged.  
*Prereq: CTAR 152, CTAR 252, CTAR 155, or department permission.*
- CTAR 363 Stage Costume: History and Theory** 3 hrs  
A survey of the principles and practices of stage costuming from antiquity to the present.  
*Prereq: CTAR 155 or department permission.*
- CTAR 364 Stage Costume: Design and Construction** 3 hrs  
The fundamentals of designing theatrical costumes and a study of specific construction problems found in the making of period costumes.  
*Prereq: CTAR 363 or department permission.*
- CTAR 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
- CTAR 387/388/389 Cooperative Education in Arts Management** 1/2/3 hrs  
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.  
*Prereq: Nine credit hours in concentration, approval by Cooperative Education Office, and department permission.*
- CTAR 429 History and Theory of Developmental Drama/Theatre** 3 hrs  
An introductory study of the history and theory of developmental drama/theatre. The current thinking of major practitioners in the field of developmental drama/theatre; current research that involves the development of new knowledge or the validation of existing knowledge relating to history and theory of developmental drama/theatre.
- CTAR 450 History of the Theatre to 1642** 3 hrs  
A history of the physical theatre and the written drama from antiquity to 1642. Emphasis on theatre architecture and stagecraft, including scenery, costumes and lighting.  
*Prereq: Junior standing or department permission.*
- CTAR 451 History of the Theatre: 1642 to the Present** 3 hrs  
History of the physical theatre and the written drama in the western world from the Commonwealth period in England to the present.  
*Prereq: Junior standing or department permission.*
- CTAR 452 Arts Management** 3 hrs  
A study of managerial practices of arts organizations and agencies. Emphasis on facility planning, personnel, income sources, promotion, budget development and management.
- CTAR 453 Marketing the Arts** 3 hrs  
Relates traditional marketing practices to arts administration and provides experience in applying marketing skills to the arts. The study of marketing in the arts and information relating to past market analysis; research and preparation of a specific market plan for an arts organization; presentation of market plan.  
*Prereq: MKTG 360.*
- CTAR 454 Law, Public Policy, and the Arts** 3 hrs  
Examination of the impact of public policy and law on arts organizations and the individual artist. Particular attention is paid to tax policy, copyright, arts advocacy and contract law.  
*Prereq: 12 hours in arts management or department permission.*
- CTAR 457 Audition** 2 hrs  
Intensive study in the preparation of audition material for a wide range of stylistic demands that exist within the professional theatre.  
*Prereq: CTAR 157 or CTAR 158, or CTAR 358 or CTAR 461 or CTAR 464.*
- CTAR 458 Problems in Modern Theatre** 3 hrs  
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 multiple solutions.  
*Prereq: 12 hours in theatre or department permission.*
- CTAR 459 Problems in Premodern Theatre** 3 hrs  
The collaborative study and presentation of pre-1850 theatrical styles and genres for actor, director and designer. Students work in production teams to develop and present multiple solutions.  
*Prereq: 12 hours in theatre or department permission.*
- CTAR 461 Musical Theatre Acting** 2 hrs  
Analysis and application of the performance skills needed by the actor/singer in musical theatre.  
*Prereq: Nine hours in theatre arts or department permission.*
- CTAR 462 Directors on Directing** 2 hrs  
Study of select, noted stage directors past and present.  
*Prereq: Nine hours in theatre arts or department permission.*



**CTAR 463 The American Musical Stage** 3 hrs  
Character, production, style in the American musical including concept musicals, operetta, golden age, rock, and musical revues. Historical survey and production workshop format.  
*Prereq: Junior standing or above.*

**CTAR 464 Style for the Actor** 3 hrs  
This course will address the challenge of matching the actor's personal methods with a wide range of stylistic demands that exist in the theatrical repertory. The student will discover that acting means translating the text into a series of actions and that physical actions take on a particular shape or style in accordance with the given circumstances of the text.  
*Prereq: CTAR 158 or CTAR 157. Open to juniors and seniors. Graduate students with permission.*

**CTAR 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

**CTAR 487/488/489 Internship in Arts Management** 1/2/3 hrs  
One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities.  
*Prereq: 20 credit hours of concentration courses and department permission.*

**CTAR 496 Senior Seminar** 2 hrs  
A capstone course for theatre majors. A comprehensive and unified study of all areas of theatre. Combining knowledge and skills with preparation for professional careers and/or graduate study.  
*Prereq: Open only to department seniors or by department permission.*

**CTAR 497/498/499 Independent Study** 1/2/3 hrs  
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.  
*Prereq: Department permission.*

### Fundamentals of Speech Courses

**CTAS 121 Fundamentals of Speech** 2 hrs  
Theory and practice in the principles of effective speech composition and presentation. Not open to students with credit in CTAS 124.

**CTAS 124 Fundamentals of Speech** 3 hrs  
More intensive theory and practice in the principles of effective speech composition. Not open to students with credit in CTAS 121.

**CTAS 379 Special Topics** 3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

### Telecommunications and Film Courses

**CTAT 130 Introduction to Telecommunications and Film** 3 hrs  
An introduction to mass media and telecommunication systems in the United States. Emphasis on development of telecommunications industries including radio-television-film, programming, new technology, regulation and financial support.

**CTAT 131 Introduction to Audio Production and Direction** 2 hrs  
For majors and minors only. Class meets for three hours per week, one hour lecture and two hours laboratory. The students will work with the audio facilities in Quirk Building including audio facilities in WQBR, Quirk TV studio, and the audio production booths. The course will be

required of all telecommunications majors and minors. As an introductory course in audio production, CTAT 131 is essential to all other advanced production courses, including video and film. As such, CTAT 131 must be taken before CTAT 132 or other courses in the production curriculum. Laboratory fee.

**CTAT 132 Introduction to Video Production and Direction** 2 hrs  
For majors and minors only. Class meets three times per week. One hour will be devoted normally to lecture and discussion. The two remaining hours will be spent in the television studio working with production equipment under supervised conditions. This course is required for all majors and minors in Telecommunications and Film. CTAT 132 is designed as an introductory course in video production. Laboratory fee.  
*Prereq: CTAT 131.*

**CTAT 141 Introduction to Radio-TV-Film Production** 3 hrs  
For non-majors and non-minors. A study and application of the technical elements of radio, television and film with emphasis on the operation of studio and remote equipment. Laboratory hours will be arranged in order to ensure adequate practical experiences in the operation of studio production facilities. Laboratory fee.

**CTAT 145 Introduction to Film Appreciation** 3 hrs  
An introduction to understanding the moving image as a medium of artistic expression and persuasion. The course will consider the principal components of film/video language including photography, writing, performances, editing, mise-en-scène, and major classification systems such as genres and auteurism. It will include an historical overview of the development of film/video industries, major theoretical approaches, and an analysis of the moving image's effects on audiences. Laboratory fee.

**CTAT 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

**CTAT 231 Audio Recording Techniques** 3 hrs  
An introduction to the practical problems of recording music ensembles from soloists to symphony orchestras. A professional audio engineer will supervise on-site recording sessions and all postproduction work. Two regular lecture hours and two hours of laboratory per week. Fieldwork projects arranged. Laboratory fee.  
*Prereq: CTAT 130, CTAT 131 and CTAT 132; or department permission.*

**CTAT 236 History and Criticism of Radio and Television** 3 hrs  
An historical survey of network radio and television entertainment and public affairs programming with an emphasis on how the networks' offerings were received by a select number of social and cultural critics of the two media.  
*Prereq: CTAT 130.*

**CTAT 241 Radio-Television-Film Announcing** 3 hrs  
A study of the various types of radio, television and film nondramatic speaking such as music, commercials, interviews and documentaries. Practice and evaluation of announcing types and styles.  
*Prereq: CTAT 130 and CTAT 131 and CTAT 132, or department permission.*

**CTAT 245 A Survey of American Cinema, 1894-Present** 3 hrs  
This course is a chronological survey of the development of American cinema with an emphasis on the roles played by technological innovations, corporate development, and government intervention on the emergence of a dominant mode of film production practice. Key films by important directors from the entire period will be screened and discussed.  
*Prereq: CTAT 145 or department permission.*

- CTAT 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
- CTAT 331 Fundamentals of Radio Production and Direction** 3 hrs  
The fundamentals of preparation, production, direction and evaluation of nondramatic radio programs.  
*Prereq: CTAT 130 and CTAT 131 and CTAT 132, or department permission.*
- CTAT 332 Fundamentals of Television Production and Direction** 3 hrs  
The fundamentals of preparation, production, direction and evaluation of nondramatic television programs. Emphasis is placed on basic techniques of studio and remote productions. Laboratory fee.  
*Prereq: CTAT 130 and CTAT 131 and CTAT 132, or department permission.*
- CTAT 333 Fundamentals of Film Production and Direction** 3 hrs  
An introduction to the principles of film production. Course offers theory and practice of film continuity, master sequencing, narrative and nonnarrative editing. Two 16mm film projects will be required. Laboratory fees.  
*Prereq: CTAT 130 and CTAT 131 and CTAT 132, or department permission.*
- CTAT 334 Radio-Television News** 3 hrs  
A study of the principles, techniques, and forms of broadcast journalism. Emphasis is placed on broadcast news writing, editing, and delivery.  
*Prereq: CTAT 130, CTAT 131 and CTAT 132 for majors and minors, or JRNL 215 for majors/minors in journalism or public relations, or department permission.*
- CTAT 335 Studies in Film** 3 hrs  
Students will examine non-Hollywood films including European, Asian, and Third World theatrical films or documentary, animated and experimental films. The topics will alternate over terms to allow for an in-depth approach.  
*Prereq: CTAT 145.*
- CTAT 336 Studies in Telecommunications** 3 hrs  
A comparative study of broadcasting services in European, Soviet and Third World nations, also international shortwave, satellite interconnections, CATV, limited application video systems and new technologies. The topics will alternate over terms to allow for an in-depth approach.  
*Prereq: CTAT 130 and CTAT 131 and CTAT 132, or department permission.*
- CTAT 341 Radio-Television-Film Dramatic Performance** 3 hrs  
A study of types and styles of dramatic speaking for radio, television and film. Practice in the basic techniques of acting for the three media.  
*Prereq: CTAT 130 and CTAT 131 and CTAT 132, or department permission. CTAO 210 or CTAR 158 recommended.*
- CTAT 344 Continuity Writing for Radio-Television-Film** 3 hrs  
A study of the forms of nondramatic writing for radio, television and film, including commercials, public service announcements, music continuity and narrations.  
*Prereq: CTAT 130 and CTAT 131 and CTAT 132, or department permission.*
- CTAT 345 American Film Genres** 3 hrs  
This course examines key American film genres, both past and present, to identify their unique narrative and stylistic properties and to show their important economic, social, psychological and symbolic functions. Genres to be considered include westerns, musicals, horror films, science fiction films, the "woman's" film, detective films, African American films and sequels.  
*Prereq: CTAT 145 or department permission.*
- CTAT 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
- CTAT 387/388/389 Cooperative Education in Radio-TV-Film** 1/2/3 hrs  
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.  
*Prereq: Nine hours in concentration, approval by Cooperative Education Office, and department permission.*
- CTAT 431 Advanced Radio Production and Direction** 3 hrs  
A continuation of CTAT 331. Advanced theory and practical experience in production of longer, more complex dramatic and nondramatic material for radio.  
*Prereq: CTAT 331 or department permission.*
- CTAT 432 Advanced Television Production and Direction** 3 hrs  
A continuation of CTAT 332. Principles, practices and techniques of directing and producing dramatic material for television. Major television formats discussed and analyzed. Practical experience in depth provided for each student. Laboratory fee.  
*Prereq: CTAT 332 or department permission.*
- CTAT 433 Advanced Film Production and Direction** 3 hrs  
Students make complete 16mm color films or videotapes participating in all stages of production from scripting, filming and taping, to developing an original soundtrack and a final edited version. Laboratory fees.  
*Prereq: CTAT 333 and department permission.*
- CTAT 445 Film Theory and Criticism** 3 hrs  
An intensive study of the key theories of film structure, historical development and sociological function. Emphasis upon theories of editing, auteur criticism, genres and textual analysis.  
*Prereq: CTAT 145.*
- CTAT 446 Contemporary Problems in Telecommunications** 3 hrs  
A study of contemporary issues and problems affecting the telecommunications industries, including sociological and psychological influences, programming, new technology, regulation and research.  
*Prereq: 12 hours of radio-television courses or department permission.*
- CTAT 447 Radio-Television Station Management** 3 hrs  
Study of station management in the areas of advertising, programming, personnel, applied research and public relations.  
*Prereq: 12 hours of radio-television courses or department permission.*
- CTAT 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
- CTAT 487/488/489 Internship in Radio-TV-Film** 1/2/3 hrs  
One semester of practical, on-the-job work experience and training (ten hours per week minimum) at select on-campus or off-campus facilities.  
*Prereq: 20 hours of concentration courses and department permission.*
- CTAT 497/498/499 Independent Study** 1/2/3 hrs  
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.  
*Prereq: Department permission.*

# Computer Science

Web site: [gryphon.acad.emich.edu/](http://gryphon.acad.emich.edu/)

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**Professors:** Ranjan Chaudhuri, George E. Haynam, Hartmut F.W. Höft, Kurt E. Lauckner, Mildred D. Lintner, William W. McMillan, Aby Tehranipour

**Associate Professors:** Andrew C. Dempster, Alan Heezen, John H. Remmers, Sushil K. Sachdev

**Assistant Professors:** John K. Cooper, Susan M. Haynes, Michael Zeiger

**Instructors:** Zenia Bahorski, Augustine Ikeji, Pamela A. Moore

**Computer Coordinator:** Steve Dotson

The Computer Science Department offers training to facilitate both initial placement and continued growth in a rapidly changing and expanding field. Industrial ties are maintained through the cooperative education aspect of the program. The non-teaching computer science major prepares graduates for careers in computer systems analysis, software development and application programming. The non-teaching minor accommodates students in mathematics, the physical and social sciences, and other fields concerned with information processing applications. The teaching major and minor train secondary school teachers of computer science. In-service employees in industrial or research information processing environments, or in schools, can take specific courses to improve their professional competency.

## Degrees:

Bachelor of Science and Bachelor of Arts

## Programs of Study

### Majors:

Computer science  
 Computer science for secondary education

### Minors:

Computer science  
 Computer science for secondary, K-12, and special education-secondary

Advising assistance may be obtained through the department office. An adviser list is posted, and the department secretary will direct students to appropriate faculty members.

## Advising Coordinators:

Computer science (non-teaching): Kurt Lauckner  
 Computer science (teaching): Mildred Lintner

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 Major

ISIS major code: CS01

**Required courses:** ..... 24

#COSC 138 Computer Science I (satisfies general education requirement I.5) ..... 3  
 COSC 238 Computer Science II ..... 3  
 COSC 239 Assembly and Machine Language Programming ..... 3  
 COSC 330 Discrete Mathematical Structures ..... 3  
 COSC 334 Data Structures ..... 3

COSC 337 Programming Languages ..... 3

COSC 338 Computer Organization ..... 3

COSC 365 Foundations of Automata and Languages ..... 3

**Restricted electives:** ..... 12

Choose four courses from the following two groups with at least two courses from Group A:

### Group A

COSC 430 Compiler Construction, COSC 431 Systems Programming, COSC 433 Computer Operating Systems, COSC 441 Computing Network Principles

### Group B

COSC 425 Heuristic Programming, COSC 432 Switching Theory, COSC 435 Introduction to Microprocessors, COSC 437 Microcomputer Graphics, COSC 442 Database Principles, COSC 443 Software Engineering Principles

**Additional required mathematics courses:** ..... 17-19

#MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4

#MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4

#MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) ..... 3

MATH 360 Statistical Methods or MATH 370 Probability and Statistics I ..... 3-4

Choose one course from the following: ..... 3-4

MATH 223 Multivariable Calculus, MATH 319 Mathematical Modeling, MATH 325 Differential Equations, MATH 411 Abstract Algebra, MATH 418 Applied Linear Algebra, MATH 425 Mathematics for Scientists, MATH 436 Introduction to Numerical Analysis, MATH 471 Probability and Statistics II

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/csc/ugrad/major/csc.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/csc/ugrad/major/csc.html).

**Total:** ..... 36 hours

*#Advising note:* 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.

## Computer Science Major

### Secondary Teacher Certification

ISIS major code: CS31

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 computer science, certification code "NR," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the International Society for Technology in Education. The certification test covering this field is #50, "Computer Science."

**Teaching Major:** ..... 30 hours

#COSC 136 Computers for the Non-specialist (satisfies general education requirement I.5) ..... 3

#COSC 138 Computer Science I (satisfies general education requirement I.5) ..... 3

COSC 238 Computer Science II ..... 3

COSC 239 Assembly and Machine Language Programming ..... 3

COSC 330 Discrete Mathematical Structures ..... 3

COSC 334 Data Structures .....	3
COSC 336 Programming Languages for Educators .....	3
COSC 340 Applications in Computer Science .....	3
COSC 490 Seminar and Project Design for Educators .....	3
<i>One of:</i> .....	3
HIST 290 Introduction to the History of Technology (3)	
PLSC 382 Politics and the 21st Century (3)	
ANTH 379 Special Topics: Contemporary Issues in Developing and Modern Technological Societies (3)	
ECON 386 Technology and Economic Growth (3)	
SOCL 462 Complex Organizations (3)	
INDT 495 Technology, Values, and the Future (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coal/csc/ugrad/major/csc\\_t.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coal/csc/ugrad/major/csc_t.html).

*#Advising note:* 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.

### Computer Science Minor

ISIS minor code: CS02

Students on the nonteaching minor interested in computer science applications in business may substitute courses from the College of Business with permission of the advising coordinator in computer science.

<b>Required courses:</b> .....	<b>12</b>
#COSC 138 Computer Science I (satisfies general education requirement I.5) .....	3
COSC 238 Computer Science II .....	3
COSC 239 Assembly and Machine Language Programming .....	3
COSC 334 Data Structures .....	3
<b>Restricted electives:</b> .....	<b>9</b>
Choose three courses from the following:	
COSC 330 Discrete Mathematical Structures; COSC 337 Programming Languages; COSC 338 Computer Organization; COSC 365 Foundations of Automata and Languages; COSC 430 Compiler Construction; COSC 431 Systems Programming; COSC 432 Switching Theory; COSC 433 Computer Operating Systems; COSC 435 Introduction to Microprocessors; COSC 437 Microcomputer Graphics; COSC 441 Computing Network Principles, COSC 442 Database Principles, COSC 443 Software Engineering Principles	
<b>Total:</b> .....	<b>21 hours</b>

*#Advising note:* This course satisfies both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

### Computer Science Minor

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

ISIS minor code: CS31

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in computer science, certification code "NR." The certification test covering this field is #50, "Computer Science."

#COSC 136 Computers for the Non-specialist (satisfies general education requirement I.5) .....	3
#COSC 138 Computer Science I (satisfies general education requirement I.5) .....	3
COSC 238 Computer Science II .....	3
COSC 239 Assembly and Machine Language Programming .....	3
COSC 334 Data Structures .....	3
COSC 336 Programming Languages for Educators .....	3
COSC 340 Applications in Computer Science .....	3
COSC 346 Methods of Teaching Computer Science in the Secondary Schools .....	3

**Total:** ..... **24 hours**

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Computer Science Courses

**COSC 136 Computers for the Non-specialist** **3 hrs**  
A survey of computer concepts. Emphasis is on visual communications, information management and communication technologies. Students will also use a wide variety of practical computer applications. Fulfills general education computer literacy requirement. Does not count toward the computer science major. Required of all computer science education majors and minors.

**COSC 137 Introduction to FORTRAN Programming** **3 hrs**  
An introductory course for persons wishing to learn programming and applications of computers. Using the FORTRAN language, students develop and run programs to solve a variety of problems. Credit will not be given for more than one of COSC 137 and COSC 237. Does not count toward computer science major or minor.  
*Prereq: One and a half years of high school algebra.*

**COSC 138 Computer Science I** **3 hrs**  
An introduction to computers, programming, algorithm development and a high-level language such as C++. In particular, strategies for problem solving, problem analysis, algorithm representation and algorithm verification are balanced with actual program development using good design and documentation techniques. The first course in the computer science major and minor, but open to all students.  
*Prereq: High school algebra II or MATH 105.*

**COSC 177/178/179 Special Topics** **1/2/3 hrs**  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**COSC 237 Computer Programming and Numeric Methods** **3 hrs**  
An introductory programming course focusing on numerical algorithms fundamental to scientific computer work. Discussion of polynomial interpolation, numerical integration, solutions of systems of equations, and error analysis. Using the FORTRAN language, students develop and run programs to solve a variety of problems. Credit will not be given for more than one of COSC 137 and COSC 237. Does not count toward computer science major or minor.  
*Prereq or coreq: MATH 121.*

**COSC 238 Computer Science II** **3 hrs**  
The second course in an introductory sequence for the computer science major, minor and others. Continues software engineering methodology through specification, design, coding and program correctness. Nested



procedures and functions, scope and recursion. Introduction to data structures such as stacks, queues, linear lists, trees, sets and files. Analysis of sorting and searching algorithms.

*Prereq:* COSC 138.

**COSC 239 Assembly and Machine Language Programming 3 hrs**  
Computer structure, machine language, instruction execution and digital representation of data. Computer systems organization and programs. Symbolic coding and assembly systems, macro definition and generation, program segmentation and linkage.

*Prereq:* COSC 137, COSC 138, COSC 237, or IS 219.

**COSC 250 Programming for CAD/CAM 3 hrs**  
An introduction to programming in the C language intended for CAD/CAM majors in the College of Technology. Meets for two hours per week of lecture/demonstration, integrated with two hours of supervised laboratory work, using an integrated programming environment running on MS-DOS. Additional unsupervised lab time will also be available. Covers the basics of C statements, data types, operators, functions, arrays and character strings. Structures and files will be introduced.

*Prereq:* Any college-level course in programming and permission of the Industrial Technology Department.

**COSC 277/278/279 Special Topics 1/2/3 hrs**  
A 200-level course in a specific area of computer science, to be determined by the field of specialization of the instructor and the interest of the students.

*Prereq:* Instructor consent.

**COSC 330 Discrete Mathematical Structures 3 hrs**  
Set algebra and algebraic structures. Elements of the theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications to various areas of computer science.

*Prereq:* COSC 238, COSC 239 and MATH 122. COSC 239 may be taken concurrently.

**COSC 334 Data Structures 3 hrs**  
Linear lists, strings, arrays and orthogonal lists. Representation of trees and graphs. Storage systems, structures, storage allocation and collection. Symbol tables, searching and sorting techniques. Formal specification of data structures and data management systems.

*Prereq:* COSC 238 and COSC 239.

**COSC 336 Programming Languages for Educators 3 hrs**  
Formal definition of programming languages; structure of simple statements; global properties of algorithmic languages; structure of list processing, string manipulation, data description and simulation languages; run-time representation of program and data structures. Special emphasis will be placed on education-oriented languages. Credit will not be given for both COSC 336 and COSC 337.

*Prereq:* COSC 238 or equivalent and COSC 239.

**COSC 337 Programming Languages 3 hrs**  
Formal definition of programming languages; structure of simple statements; global properties of algorithmic languages; structure of list processing, string manipulation, data description, and simulation languages; run-time representation of program and data structures. Credit will not be given for both COSC 336 and COSC 337.

*Prereq:* COSC 238 and COSC 239.

**COSC 338 Computer Organization 3 hrs**  
Basic digital circuits, data representation and transfer, digital arithmetic. Digital storage and accessing, control functions, input-output facilities, systems organization, reliability, simulation techniques. Multiprogramming, multiprocessing and real-time systems.

*Prereq:* COSC 238 and COSC 239.

**COSC 340 Applications in Computer Science 3 hrs**  
Information systems, simulation, graphics, audio communication, artificial intelligence, instruction and training, and communications. The student will write or use previously written programs in each of the above areas using microcomputers. These programs will use many languages and programs including LOGO, PASCAL, BASIC, electronic spreadsheet and a database program.

*Prereq:* COSC 136, COSC 238 and junior standing.

**COSC 346 Methods of Teaching Computer Science in the Secondary Schools 3 hrs**

Computer science programs in the high school, information and materials needed to prepare students for the teaching of computer science in these schools. Organization and content, methods of teaching and learning, security and maintenance of equipment, professional journals and magazines available for future growth, copying software and the legality of software duplication, dealing with diversity of abilities, problem-solving skills, and strategies for debugging programs. *This methods class does not count toward the major or minor.*

*Prereq:* COSC 336, CURR 305 and admission to the teacher education program.

**COSC 355 Symbolic Computing 3 hrs**  
Symbolic computations and graphic representations in a computer algebra system such as Mathematica; 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).

*Prereq:* MATH 122, COSC 138 and department permission. Junior standing.

**COSC 365 Foundations of Automata and Languages 3 hrs**  
A rigorous treatment of finite-state automata and the languages accepted by them: deterministic and nondeterministic automata, pushdown automata, regular and context-free languages, Turing machines. Applications to lexical analysis and parsing. Students will design automata and implement language processors.

*Prereq:* COSC 330 and COSC 334.

**COSC 377/378/379 Special Topics 1/2/3 hrs**  
Covers topics not considered in other courses when the immediate needs of the field, interests of the students, and expertise of the faculty coincide.

*Prereq:* COSC 238, COSC 239, and department permission.

**COSC 388 Cooperative Education in Computer Science 3 hrs**  
Four to six months of full-time employment at an industrial firm specially chosen to provide practical experience in computer science. The program consists of two work experiences (COSC 388 and COSC 488) alternating with full-time attendance at the University. Use on computer science major subject to department permission. Graded credit/no credit. *Prereq:* Junior or senior majoring in computer science, any 300-level course in computer science, admittance to program by application, department permission.

**COSC 425 Heuristic Programming 3 hrs**  
Programming techniques for problems with large-state spaces or uncertain knowledge: searches, heuristic evaluation, rule-based inference, approximate reasoning and adaptation using neural nets, genetic algorithms and reinforcement learning.

*Prereq:* COSC 365.

**COSC 430 Compiler Construction 3 hrs**  
Review of programming language structures, translation, loading, execution and storage allocation. Compilation of simple statements. Orga-

nization and overall design of a compiler. Use of compiler writing languages.

*Prereq: COSC 337 and COSC 365.*

**COSC 431 Systems Programming** **3 hrs**

Batch-process systems programs, components and operating characteristics. Implementation techniques for parallel processing and interrupt handling. Overall structure of multiprogramming systems. Addressing techniques, file system design and management. Interprocess communication, design of system modules and interfaces.

*Prereq: COSC 334, COSC 337 and COSC 338.*

**COSC 432 Switching Theory** **3 hrs**

Switching algebra, gate network and sequential circuit analysis and synthesis. Boolean algebra, sequential circuit state and combinational circuit minimization, hazards and races, elementary number systems and codes.

*Prereq: COSC 330 and COSC 338.*

**COSC 433 Computer Operating Systems** **3 hrs**

Computer operating systems functions and concepts. Processor allocation: multiprogramming and scheduling algorithms. Memory tasks and data management. The deadlock problem. Virtual memory, allocation strategies and analysis of their algorithms. Design, implementation and protection of I/O files. Survey of available computer operating systems.

*Prereq: COSC 334 and COSC 338.*

**COSC 435 Introduction to Microprocessors** **3 hrs**

The fundamentals of small-system software development as it applies to microprocessors and minicomputers. Introduction to microprocessors and peripheral hardware; software and software development; applications. Students will have access to both microcomputers and a minicomputer to gain first-hand knowledge of this field.

*Prereq: COSC 338 or department permission.*

**COSC 437 Microcomputer Graphics** **3 hrs**

A course in computer graphics using microcomputers. Display technologies. Raster graphics, displaying graphics primitives such as points, lines, curves, text and scan-conversion algorithms. Displaying graphs, functions, bar and pie charts, and applications. 2-D graphics including windowing, viewporting, window-to-viewport transformation, clipping algorithms, scaling, rotation and translation transformations. Interactive graphics. 3-D graphics; including scaling, rotation and translation transformations; parallel and perspective projections.

*Prereq: COSC 334 and MATH 122.*

**COSC 441 Computing Network Principles** **3 hrs**

The basic concepts of computer communication systems with particular emphasis on communication hardware and microcomputer networks. Students will be involved in the development and writing of software components of communications such as terminal emulators and file transfer packages. Basic communication theory and terminology, communication hardware devices, communication protocols and microcomputer networks.

*Prereq: COSC 334 and COSC 338. COSC 330 recommended.*

**COSC 442 Database Principles** **3 hrs**

A technical review of the theory and principles of database design and organization. The concepts and structures necessary to design and implement a database management system. Network, hierarchical and relational database models. Data normalization, data description languages, query languages, data integrity and security.

*Prereq: COSC 365, COSC 337 recommended.*

**COSC 443 Software Engineering Principles** **3 hrs**

The design and analysis of large and complex software systems. Students will study software life cycles, analyze the requirements, and conduct detailed design studies using modern design methodologies. The

knowledge gained from data structures, programming languages, computing architectures, and other computer science areas will be integrated and extended to build realistic systems.

*Prereq: COSC 337, COSC 338, and COSC 365.*

**COSC 452 Programming in Ada** **3 hrs**

A course in the U.S. Department of Defense language Ada for those familiar with structured programming concepts and data structures. Topics covered will be the syntax and semantics of expressions and statements. Packages and procedures, typing, abstract data types, exception handling, concurrency, generics and operator overloading. Procedures and packages will be written and tested using an Ada compiler. *Does not count as a restricted elective.*

*Prereq: COSC 334 or IS 315.*

**COSC 477/478/479 Special Topics** **1/2/3 hrs**

Covers topics not considered in other courses when the immediate needs of the field, interests of the students, and expertise of the faculty coincide.

*Prereq: Senior standing in computer science and department permission.*

**COSC 488 Cooperative Education in Computer Science** **3 hrs**

Four to six months of full-time employment at an industrial firm specially chosen to provide practical experience in computer science. The program consists of two work experiences (COSC 388 and COSC 488) alternating with full-time attendance at the University. Use on computer science major subject to department permission. Graded credit/no credit.

*Prereq: COSC 388 and department permission.*

**COSC 490 Seminar and Project Design for Educators** **3 hrs**

Major project design and more formalized, structured programming. Each student will work on two original major programs, one of which will be a group project. The student will report on both projects (written and oral) and give a formal presentation of the individual project to the University community in the form of a public lecture.

*Prereq: COSC 334, COSC 336, and senior standing.*

**COSC 493 Senior Project** **1 hr**

Intended for computer science majors in their senior year, this course assesses students' knowledge of the field's core subjects, surveys students to get reactions to and suggestions for the department's academic program, and provides guidance to students as they carry out a computing project and present it in a public forum as a poster presentation or talk. Credit/no credit.

*Prereq: COSC 334, COSC 337, COSC 338, COSC 365, senior standing or department permission.*

**COSC 497/498/499 Independent Study** **1/2/3 hrs**

A report or project on an approved subject in the field of computer science under the guidance of the staff of the Computer Science Department.

*Prereq: Undergraduate grade point average in computer science of 3.0 or above and department permission.*

# Economics

Web site: [www.emich.edu/public/economics/homepage.htm](http://www.emich.edu/public/economics/homepage.htm)

**Raouf S. Hanna**  
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 734.487.3395  
 E-mail: [raouf.hanna@emich.edu](mailto:raouf.hanna@emich.edu)

**Donald Pearson**  
**Coordinator of Undergraduate Programs**  
 703 Pray-Harrold  
 734.487.0008  
 E-mail: [eco\\_pearson@online.emich.edu](mailto:eco_pearson@online.emich.edu)

**Professors:** John Edgren, Raouf S. Hanna, Kemper Moreland, Donald Pearson, Michael G. Vogt, Bill Woodland  
**Associate Professors:** Abdullah Dewan, Sharon J. Erenburg, Alfredo Esposito, Steven Hayworth, James Thornton  
**Assistant Professor:** David Crary

The Economics Department offers majors and minors in economics, with diversified areas of specialization, and in labor studies. A major in actuarial science and economics is offered in a joint program with the Mathematics Department. The department also participates in other University programs such as language and international trade, area studies offered in the History and Philosophy Department, the minor in conservation and resource use in the Biology Department, and the Women's Studies Program.

Students have access to the University computer system through the department's own statistical laboratory and terminals, and through facilities available at various locations on campus.

The department presents six annual student awards: the Murg Award for outstanding service to the Economics Department; the Gockerman Award for an outstanding paper on a subject related to economics; two Hanna Awards for outstanding papers in econometrics; the Moore Award for an outstanding essay in law and economics; the Rowan Award for an economics major with a superior academic record who is interested in a government service career; the Labor Studies Award for superior course work, outstanding research effort, public service, and/or commitment to the Labor Studies program and its goals; and the Student Achievement Award for the highest grade point average in economics.

Also, 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, and the Economics Club, for students interested in economics as a major or minor or complementary field to their studies either for further study in economics or for preparation for professional programs such as law and business administration.

## Degrees:

Bachelor of Arts or Bachelor of Science in economics  
 Bachelor of Business Administration in economics  
 Bachelor of Arts in labor studies  
 Bachelor of Arts or Bachelor of Science in actuarial science and economics

## Programs of Study

### Majors:

Actuarial Science (joint program with Department of Mathematics)  
 Economics  
 Economics for secondary education  
 Labor Studies

## Minors offered:

Economics  
 Economics for secondary, K-12, and special education-secondary  
 Labor Studies

## Advising Coordinators:

Undergraduate students seeking advising should see Dr. Donald W. Pearson, coordinator of undergraduate advising, for their initial visit. They will be assigned to an adviser by the coordinator.

B.A./B.S. in actuarial science and economics: Bill Woodland  
 B.A./B.S. in economics: Abdullah Dewan, John Edgren, Kemper Moreland  
 B.B.A. in economics: David Crary, Bill Woodland  
 Labor studies: Donald W. Pearson

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.

## Bachelor of Business Administration in Economics

### ISIS major code: EC04

The Bachelor of Business Administration in economics degree program is designed to provide professional training in economics applicable to business management for students contemplating administrative or research careers in business or government. This program provides an additional career program option for students by permitting them to major in economics while taking the same foundation courses required of all business students. This is a cooperative program with the College of Business.

Students enrolling in this program are required to follow the business administration curriculum in addition to fulfilling the 24 credit hours in economics.

**Assessment:** As a condition of graduation, all majors are required to maintain and submit a portfolio reflection of their program of study. Contents may include annual progress reports, copies of term papers, opinion statements about the program, and quizzes. Details are available from the coordinator of advising.

<b>Major in economics</b> .....	<b>24</b>
<i>Required courses</i> .....	<b>9</b>
ECON 301 Intermediate Macroeconomic Analysis .....	3
ECON 302 Intermediate Microeconomic Analysis .....	3
*ECON 310 Economic Statistics or ECON 415 Introduction to Econometrics .....	3

*\*Students also may meet the statistics requirement by taking DS 265 Business Statistics I. If students elect DS 265, they are not eligible to take ECON 310 Economic Statistics; ECON 415 Introduction to Econometrics is recommended in this case.*

<i>Restricted electives</i> .....	<b>15</b>
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Although any 15 credit hours of 300-level or above electives in economics will complete the requirements for the major, students may pursue one of the six recommended career course patterns: business economics, economics of finance, labor economics, governmental economics, comparative economic systems, or theoretical and quantitative economics.

Student selecting this economics major are encouraged to include at least one 400-level course offered in the College of Business as an elective.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/eco/ugrad/major/bbae.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/eco/ugrad/major/bbae.html).

## Actuarial Science and Economics Major

ISIS major code: MA02

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. The first of these covers calculus and linear algebra and the second covers mathematical statistics. MATH 372 and MATH 472 are designed to prepare students for these examinations.

**Required courses:** ..... 53  
**General education:** ..... 9

- #ECON 201 Principles of Economics I (satisfies general education requirement III.3) ..... 3
- #ECON 202 Principles of Economics II (satisfies general education requirement III.4) ..... 3
- One of:* (satisfies general education requirement I.5) ..... 3
  - #COSC 137 Introduction to FORTRAN Programming (3)
  - #COSC 138 Computer Science I (3)
  - #COSC 237 Computer Programming and Numeric Methods (3)

**Mathematics:** ..... 30

- #MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4
- #MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4
- #MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) ..... 3
- MATH 223 Multivariable Calculus ..... 4
- MATH 370 Probability and Statistics I ..... 4
- MATH 372 Problems in Actuarial Studies I ..... 3
- MATH 436 Introduction to Numerical Analysis ..... 3
- MATH 471 Probability and Statistics II ..... 3
- MATH 472 Problems in Actuarial Studies II ..... 2

**Economics:** ..... 15

- ECON 301 Intermediate Macroeconomic Analysis ..... 3
- ECON 302 Intermediate Microeconomic Analysis ..... 3
- ECON 320 Labor Economics ..... 3
- ECON 340 Money and Banking ..... 3
- ECON 415 Introduction to Econometrics ..... 3

**Restricted electives:** ..... 7

- Choose electives from courses at the 300 level and above in mathematics, computer science or economics

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/mth/ugrad/major/act.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/mth/ugrad/major/act.html).

**Total:** ..... 60 hours

*#Advising note:* 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.

## Economics Major

ISIS major code: EC01

The major in economics requires 30 credit hours, of which 15 hours are elected from economics courses without restriction, or as a concentration of courses in one of the following areas: business economics, economics of finance, labor economics, governmental economics, comparative economic systems, or theoretical and quantitative economics.

**Required courses:** ..... 15

- #ECON 201 Principles of Economics I (satisfies general education requirement III.3) ..... 3
- #ECON 202 Principles of Economics II (satisfies general education requirement III.4) ..... 3
- ECON 301 Intermediate Macroeconomic Analysis ..... 3
- ECON 302 Intermediate Microeconomic Analysis ..... 3
- ECON 310 Economic Statistics or ECON 415 Introduction to Econometrics ..... 3

**Electives:** ..... 15

- Although any 15 credit hours of electives in economics will complete the requirements for the major, choosing one of the six recommended course patterns provides concentration in a specific career area.

Inquire at the Economics Department regarding suggested concentrations, suggested courses within concentrations, and appropriate economics faculty advisers.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/eco/ugrad/major/econ.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/eco/ugrad/major/econ.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

## Labor Studies Major

ISIS major code: EC02

This program is administered through the Economics Department and leads to a Bachelor's degree in labor studies. A minor also is available. Students should select courses in consultation with the director of labor studies and/or the specified advising coordinators.

**Required courses** ..... 9

- ECON 310 Economic Statistics ..... 3
- ACC 240 Principles of Accounting I ..... 3
- ECON 320 Labor Economics ..... 3

**Restricted electives:** ..... 21

Choose seven courses from the following:

- #ECON 321 Minority Workers in the Labor Market (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), ECON 322 American Labor Unions, ECON 323 Labor and Government, ECON 324 Unionism in the Public Sector, ECON 325 Collective Bargaining, #ECON 328/WMST 328 Economics of Women (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), ECON 420 Comparative Labor Unionism
- CTAC 352 Communication in Negotiation
- HIST 463 United States Labor History
- LAW 403 Employment Law
- MGMT 384 Human Resource Management
- PLSC 335 Labor in American Politics
- PSY 351 Industrial Psychology
- SOCL 307 Industrial Sociology

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/eco/ugrad/major/labor.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/eco/ugrad/major/labor.html).

**Total:** ..... 30 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the major. In order to avoid taking excess hours, stu-



dents are advised to take these courses, or approved substitutes from another institution, as part of the general education requirements.

## Economics Major

### Secondary Teacher Certification

ISIS major code: EC31

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in economics, certification code "CA" and, depending on the minor selected, endorsement in geography ("CB"), history ("CC"), political science ("CD"), psychology ("CE"), sociology ("CF"), or social studies ("RX"). The certification test covering this field is #07, "Economics."

<b>Teaching Major</b> .....	<b>30</b>
#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	3
#ECON 202 Principles of Economics II (satisfies general education requirement III.4) .....	3
ECON 301 Intermediate Macroeconomic Analysis .....	3
ECON 302 Intermediate Microeconomic Analysis .....	3
<i>One of:</i> .....	3
ECON 310 Economic Statistics (3)	
ECON 415 Introduction to Econometrics (3)	
15 hours of electives in economics .....	15

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/eco/ugrad/major/eco\\_t.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/eco/ugrad/major/eco_t.html).

*#Advising note:* 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.

## Economics Minor

ISIS minor code: EC01

<b>Required courses</b> .....	<b>6</b>
#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	3
#ECON 202 Principles of Economics II (satisfies general education requirement III.4) .....	3
<b>Electives</b> .....	<b>14</b>
Choose 14 credits from any economics courses, ECON 301 and ECON 302 are highly recommended.	
<b>Total:</b> .....	<b>20 hours</b>

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Labor Studies Minor

ISIS minor code: EC02

<b>Electives:</b> .....	<b>20</b>
Choose 20 credits from the following:	
ECON 310 Economic Statistics, ECON 320 Labor Economics, #ECON 321 Minority Workers in the Labor Market (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), ECON	

322 American Labor Unions, ECON 323 Labor and Government, ECON 324 Unionism in the Public Sector, ECON 325 Collective Bargaining, #ECON 328/WMST 328 Economics of Women (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), ECON 420 Comparative Labor Unionism

ACC 240 Principles of Accounting I  
 CTAC 352 Communication in Negotiation  
 HIST 463 United States Labor History  
 LAW 403 Employment Law  
 MGMT 384 Human Resource Management  
 PLSC 335 Labor in American Politics  
 PSY 351 Industrial Psychology  
 SOCL 307 Industrial Sociology

**Total:** ..... **20 hours**

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Economics Minor

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

ISIS minor code: EC31

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 certification test covering this field is #07, "Economics."

#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	3
#ECON 202 Principles of Economics II (satisfies general education requirement III.4) .....	3
14 credits from any economics courses (ECON 301 and ECON 302 highly recommended)	

**Total:** ..... **20 hours**

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Economics Courses

**ECON 100 Introduction to Economic Problems and Policies 3 hrs**  
 A nontechnical introduction to basic problems facing the U.S. economy and different opinions over economic policy choices. Analysis of the controversial role of government in a private market economy. Not recommended for business students.

**ECON 177/178/179 Special Topics 1/2/3 hrs**  
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ECON 200 The American Economy 3 hrs**  
 Survey of the principles of economics; the basic knowledge of the functioning of the present-day American economy. Not open to students with ECON 201/ECON 202.

- ECON 201 Principles of Economics I** 3 hrs  
The first half of basic principles of economics. Emphasizes macroeconomic concepts of national income, fiscal and monetary policy, and problems of unemployment, inflation and economic growth.  
*Prereq: Passed math placement exam or MATH 098, or MATH 104.*
- ECON 202 Principles of Economics II** 3 hrs  
Second half of an introduction to basic principles of economics. Emphasizes microeconomic concepts of demand, supply, and problems relating to prices and resource allocation.  
*Prereq: ECON 201. Passed math placement exam or MATH 098, or MATH 104.*
- ECON 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- ECON 300 Contemporary Economics** 3 hrs  
Analysis of contemporary economic problems. Topics may change each semester as the interests and/or problems change. 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 economics.  
*Prereq: One course in economics.*
- ECON 301 Intermediate Macroeconomic Analysis** 3 hrs  
Examines macroeconomic theories of the determination of national income, employment, the price level, interest rates and economic growth; and link ages between the domestic and international economies. Topics include unemployment, inflation, monetary and fiscal policy, and the policy positions of various schools of thought. Standard analytical tools, such as IS-LM and aggregate demand and supply are examined.  
*Prereq: ECON 201 and ECON 202. MATH 105, MATH 118, MATH 119 or MATH 120.*
- ECON 302 Intermediate Microeconomic Analysis** 3 hrs  
Analyzes contemporary theories of consumer and firm behavior, prices, and resource allocation. Examines firm behavior for several market structures, and evaluates the efficiency and equity implications of market outcomes.  
*Prereq: ECON 201 and ECON 202. MATH 105, MATH 118, MATH 119 or MATH 120.*
- ECON 310 Economic Statistics** 3 hrs  
Introduction to the statistical measurement and analysis of data with applications to economics. Elements of descriptive statistics, probability, random samples, point and interval estimation, hypothesis testing, and regression analysis are examined.  
*Prereq: MATH 105, MATH 118, MATH 119 or MATH 120.*
- ECON 320 Labor Economics** 3 hrs  
Analysis of the theory of wage determination, with attention to labor supply and labor demand, human resource development, trade unions, and labor market institutions.  
*Prereq: ECON 201 and ECON 202 or equivalent.*
- ECON 321 Minority Workers in the Labor Market** 3 hrs  
Special problems and unique employment situations of minority workers (racial and ethnic minorities, women, handicapped) involving historical and market influences, and employer, union, and government policies. Recent and proposed legislation affecting the labor force status of minorities.  
*Prereq: One course in economics.*
- ECON 322 American Labor Unions** 3 hrs  
The nature, characteristics, and principles of American labor unionism; the government and structure of unions and their role in the economy.  
*Prereq: One course in economics.*
- ECON 323 Labor and Government** 3 hrs  
The economic aspects of labor legislation and governmental administrative rulings affecting unions and union-employer relations.  
*Prereq: One course in economics.*
- ECON 324 Unionism in the Public Sector** 3 hrs  
The origins, goals and methods of union organization of public sector employees. Emphasis on teachers and other public employees at state and local levels.  
*Prereq: One course in economics.*
- ECON 325 Collective Bargaining** 3 hrs  
Major problems in present-day collective bargaining including the negotiation of collective agreements, practical aspects and economic implications.  
*Prereq: One course in economics.*
- ECON 327 Inequality and Economic Justice** 3 hrs  
The distribution of wealth and income in the U.S.; an economic analysis of income maintenance programs, including the U.S. social security system.  
*Prereq: ECON 201 and ECON 202 or department permission.*
- ECON 328 Economics of Women** 3 hrs  
The changing economic role of women in the labor force. Analysis of policies affecting earnings, employment, and work and family issues in traditional and nontraditional occupations. Includes some international comparisons.  
*Prereq: One course in economics or junior standing.*
- ECON 329 Economics of Crime** 3 hrs  
The use of economic concepts and tools to analyze economic causes of crime and economic policies relevant to crime.  
*Prereq: ECON 202 or equivalent.*
- ECON 332 Urban Economics** 3 hrs  
The level, distribution, stability and growth of urban income and employment. Analysis of contemporary urban problems, such as inner-city poverty, housing-land use, transportation and local public services with special reference to economic efficiency and programs.  
*Prereq: ECON 201 and ECON 202 or equivalent.*
- ECON 336 Economics of Environment and Natural Resources** 3 hrs  
The application of economic concepts and analysis to problems of environment and management of natural resources.  
*Prereq: ECON 202 or equivalent.*
- ECON 337 Energy Economics and Policies** 3 hrs  
Introduction to the economics of energy in the U.S. and world economies, including a critical analysis of the policies of the governments involved.  
*Prereq: ECON 202 or equivalent.*
- ECON 338 Land Economics** 3 hrs  
The use of land in modern society, including a critical economic evaluation of alternative and optimal uses of land.  
*Prereq: ECON 201 and ECON 202 or equivalent.*
- ECON 340 Money and Banking** 3 hrs  
The nature and role of money and credit, the banking system and other financial institutions, and the relation of monetary policy to the level of economic activity.  
*Prereq: ECON 201 and ECON 202 or equivalent.*

- ECON 350 Government Finance** 3 hrs  
An examination of theory, institutions and problems of financing the public sector; the effects of expenditures, taxes and other revenue sources, borrowing, debt management, and grants-in-aid at all levels of government upon the distribution of national income and upon the allocation of resources.  
*Prereq: ECON 201 and ECON 202 or equivalent.*
- ECON 361 Corporation Finance** 3 hrs  
The structure, financial organization, income and policy decisions of corporations.  
*Prereq: One course in economics.*
- ECON 370 Comparative Economic Systems** 3 hrs  
Alternative approaches to organizing economic activity, emphasizing advantages and disadvantages as compared to the U.S. economic system. Illustrations are taken from noncapitalist economies such as Cuba and China.  
*Prereq: One course in economics.*
- ECON 375 Economic History of the United States** 3 hrs  
The economic development of the United States.  
*Prereq: One course in economics.*
- ECON 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- ECON 385 Economic Development** 3 hrs  
The causes, the consequences and possible solutions of economic problems facing the developing countries of Latin America, Africa and Asia. Emphasis on mass poverty, food shortages, overpopulation, unemployment and unequal income distribution.  
*Prereq: One course in economics.*
- ECON 386 Technology and Economic Growth** 3 hrs  
The nature of technology and its importance for contemporary economic growth. Includes technological change and its effects on society and the individual.  
*Prereq: One course in economics.*
- ECON 387 Cooperative Education in Economics** 3 hrs  
Provides practical experience in the student's major field for four to six months of full-time employment at an individual employer. The program consists of one or two work experiences (ECON 387 and ECON 487) alternating with full-time attendance at the University. A written report is required at the end of each employment period. Admittance to program by application only. Graded credit/no credit. Credits count a maximum of three hours toward degree requirements in the labor studies program and none in the economics major or minor.  
*Prereq: Junior standing. Major in economics or labor studies. Department permission.*
- ECON 401 Computer Applications in Macroeconomics** 3 hrs  
Test of various hypotheses of consumption function, investment function, demand for money function, supply of money process, aggregate production function, and labor supply and demand functions. Problems of aggregation and structural vs. reduced-form estimations.  
*Prereq: ECON 301 and ECON 310, or equivalent.*
- ECON 402 Computer Applications in Microeconomics** 3 hrs  
Applied linear and nonlinear models of the consumer and the firm. Estimates demand functions (for example housing demand and energy demand), cost functions and production functions.  
*Prereq: ECON 302 and ECON 310, or equivalent.*
- ECON 405 Economic Analysis for Business** 3 hrs  
Analytical tools and methods of economic theory used in business management, focusing on production, cost, pricing and investment. Application includes demand estimation and economic forecasting.  
*Prereq: ECON 201 and ECON 202. ECON 302 highly recommended.*
- ECON 406 History of Economic Thought** 3 hrs  
A review of the development of economic thought from the age of mercantilism to present times, with the particular emphasis on landmark contributions of writers such as Adam Smith, Karl Marx, Alfred Marshall, J. M. Keynes, and significant 20th-century economists.  
*Prereq: ECON 301 and ECON 302, or department permission.*
- ECON 407 Economic Analysis and Law** 3 hrs  
The application of economic analysis to the law, including property law, contract law, family law, torts, criminal law, constitutional law, antitrust and environmental law.  
*Prereq: ECON 201 and ECON 202 or department permission.*
- ECON 415 Introduction to Econometrics** 3 hrs  
Introduction to the mathematical formulation of economic theories. The use of statistical procedures to measure the theoretical relationships and to verify or reject the theories. Quantitative predictions, measurements and statistical test of the predictions.  
*Prereq: ECON 310 or MATH 370 or DS 265.*
- ECON 420 Comparative Labor Unionism** 3 hrs  
Comparative survey of labor union movements in various economies. Differences in theories behind the movement to organize the working class, and differences in union movement evolution, giving ideological and functional perspective.  
*Prereq: ECON 201 and ECON 202 or department permission.*
- ECON 436 Health Economics** 3 hrs  
The production, distribution, supply and utilization of health care resources, especially in the United States. Relevant tools of economic analysis and empirical studies, allocation of resources to the health care sector.  
*Prereq: ECON 201 and ECON 202 or equivalent.*
- ECON 440 Money, Credit, and Monetary Policy** 3 hrs  
An analytical study of the theories of money demand and money supply. Also studied are commercial banking and the operations and conduct of Federal Reserve monetary policy under alternative policy procedures and economic disturbances. The subject is viewed from both domestic and international perspectives.  
*Prereq: ECON 301 or ECON 340 or department permission.*
- ECON 445 Economic Fluctuations and Forecasting** 3 hrs  
Study of the history, nature and causes of economic fluctuations. Also included are alternate approaches to economic forecasting used by business and government including econometric forecasting; and the role of monetary and fiscal policies, supply shocks, international factors and structural change in generating economic fluctuations.  
*Prereq: ECON 201 and ECON 202 or equivalent. ECON 301 or ECON 340 strongly recommended.*
- ECON 455 Cost-Benefit Analysis** 3 hrs  
Cost-benefit analysis techniques and their application to evaluating economic efficiency of government expenditure programs. Determination and distribution of benefits and costs in specific public projects.  
*Prereq: ECON 201 and ECON 202.*
- ECON 460 Industrial Organization** 3 hrs  
Monopoly, competition, mergers, concentration and antitrust, and other public policies affecting private enterprise in the United States.  
*Prereq: ECON 201 and ECON 202.*

**ECON 477/478/479 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**ECON 480 International Economics**

3 hrs

Analysis of theory and economic problems of international trade factor movements, exchange mechanisms, balance of payments, regional economic integration, assistance agencies, and adjustments to changing conditions.

*Prereq: ECON 201 and 202, or equivalent.*

**ECON 487 Cooperative Education in Economics**

3 hrs

Provides practical experience in the student's major field for four to six months of full-time employment at an individual employer. The program consists of one or two work experiences (ECON 387 and ECON 487) alternating with full-time attendance at the University. A written report is required at the end of each employment period. Admittance to program by application only. Graded credit/no credit. Credits count a maximum of three hours toward degree requirements in the labor studies program and none in the economics major or minor.

*Prereq: ECON 387. Department permission.*

**ECON 491 Research Seminar in Economics**

3 hrs

Selected issues in economic methodology, research procedures, and techniques with the preparation of a major research paper and group analysis of its findings.

*Prereq: Junior standing, economics major or minor.*

**ECON 497/498/499 Independent Study**

1/2/3 hrs

Advanced study on an individual research basis in areas not covered in formal course work. Restricted to economics majors and minors.

# English Language and Literature

Web site: [www.emich.edu/public/english/index.html](http://www.emich.edu/public/english/index.html)

**Russell Larson**

**Department Head**

**612 Pray-Harrold**

**734.487.4220**

**E-mail: russell.larson@emich.edu**

**Professors:** James Angle, Mark Amsler, Helen Aristar-Dry, Phillip Arrington, Paul S. Bruss, Franklin D. Case, B. Gilbert Cross, Jeffrey L. Duncan, Harry E. Eiss, Clayton Eshleman, David J. Geherin, Lucy Kelly Hayden, Thomas P. Hennings, E. Jay Jernigan, Janet Kauffman, Robert G. Kraft, Russell R. Larson, Paul D. McGlynn, Bernard A. Miller, Sheila Most, George B. Perkins, James A. Reynolds, Martin B. Shichtman, William F. Shuter, Arie Staal

**Associate Professors:** Nancy Allen, Ann Blakeslee, Cheryl Cassidy, Elisabeth Daeumer, Heinz Insu Fenkl, Catherine Fleischer, Laura George, Lolita Hendrix, Heather Neff, Alexandra M. Norton, James Pinson, T. Daniel Seely, Charles Simmons, William Tucker, Ian Wojcik-Andrews  
**Assistant Professors:** Moneera Al-Ghadeer, Lori Burlingame, Craig Dionne, Beverly Goodman, James Knapp, Steven Krause, Melissa Motschall, Annette Saddik, Carol Schlagheck, Rebecca Sipe

The programs offered by the English Department 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.

**Degrees:**

Bachelor of Arts and Bachelor of Science

**Programs of Study****Majors:**

English language

English linguistics

Journalism

Literature

Written communication with concentration in imaginative writing

Written communication with concentration in professional writing

Written communication with concentration in technical communication

Interdisciplinary and Group Majors:

English and American language and literature

English and American language and literature for secondary education

Children's literature and drama/theatre for the young

Public relations

**Minors:**

Children's literature

Children's literature for elementary education

English language

English language and literature

English language and literature for secondary, K-12, and special education-secondary

English linguistics

Journalism

Literature

Writing

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 major include evidence that their GPA is at least 2.5 at the end of the sophomore year.

Students who score above 550 on the verbal part of the SAT or 25 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/SPNH 121, 122, 221, or 222) instead of ENGL 121 English Composition.

Graduate study leads to the master's degree in English. The M.A. degree is described in the graduate catalog.

## English and American Language and Literature Major

ISIS major code: EN06

Major .....	36
LING 201 An Introduction to Linguistics .....	3
LITR 210 Introduction to Shakespeare .....	3
#ENGL 227 Writing about Literature (satisfies general education requirement I.3) .....	3
ENGL 408 Writing for Writing Teachers .....	3
One of: (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) ....	3
#LITR 204 Native American Literature (3)	
#LITR 260 African American Literature (3)	
One of: .....	3
ENGL 328 Writing: Style and Language (3)	
ENGL 417 Writing about Controversies (3)	
One of: .....	3
LING 401 Introduction to Linguistic Science (3)	
LING 402 Modern English Grammar (3)	
LING 421 The History of the English Language (3)	
One of: .....	3
LITR 305 Shakespeare: The Major Comedies and Histories (3)	
LITR 340 The Rise of British Drama to 1642 (3)	
LITR 341 English Drama 1660-1779 (3)	
LITR 411 Medieval Epic and Romance (3)	
LITR 412 English Literature in the Middle Ages (3)	
LITR 413 The Poetry of Chaucer (3)	
LITR 414 English Renaissance Prose and Poetry 1500-1660 (3)	
LITR 415 Literature of the Neo-Classical Period 1660-1798 (3)	
One of: .....	3
LITR 330 The Rise of the British Novel 1720-1832 (3)	
LITR 331 The Development of the British Novel 1832-1914 (3)	
LITR 416 Romantic Rebellion in Britain 1798-1832 (3)	
LITR 417 Victorian and Edwardian Literature 1832-1914 (3)	
One of: .....	3
LITR 333 Modern British and European Novel 1914 to Present (3)	
LITR 342 The Development of Modern Drama (3)	
LITR 401 Modern British and American Poetry 1914 to Present (3)	
LITR 460 Recent Trends in British and American Literature (3)	
One of: .....	3
LITR 328 The Rise of the American Novel to 1920 (3)	
LITR 332 The Modern American Novel 1920 to Present (3)	
LITR 409 The Development of American Literature (3)	
LITR 410 Modern American Literature (3)	

One of: .....	3
Any course listed above but not taken	
#ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3) (3)	
ENGL 335 Imaginative Writing (3)	
JRNL 215 Journalism (3)	
LING 205 English Words (3)	
LING 310 African American Language (3)	
LING 340 Language and Culture (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/eall.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/eall.html).

*#Advising note:* 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.

## English Language Major

ISIS major code: EN01

Required Courses: .....	19-21
#ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3) .....	3
ENGL 328 Writing: Style and Language .....	3
ENGL 417 Writing about Controversies .....	3
LING 201 An Introduction to Linguistics .....	3
LING 402 Modern English Grammar .....	3
LING 205 English Words or LING 421 The History of the English Language .....	3
ENGL 484 Seminar in Written Communications or LING 497 Independent Study .....	1-3
Restricted Electives: .....	9-12
LING 310 African American Language (3)	
LING 340 Language and Culture (3)	
any other LING course approved by the undergraduate adviser	
#ENGL 225 Intermediate English Composition (satisfies general education requirement I.3) (3)	
#ENGL 326 Research Writing (satisfies general education requirement I.3) (3)	
ENGL 387/ENGL 487 Cooperative Education in English (3)	
ENGL 424 Technical Writing (3)	
ENGL 427 Technical Editing (3)	
ENGL 428 Writing Computer Documentation (3)	
JRNL 215 Journalism (3)	
JRNL 306 Feature Writing (3)	
JRNL 307 Copy Editing (3)	
JRNL 314 Writing for Public Relations (3)	
JRNL 423 Magazine Article Writing, JRNL 453 Advanced Reporting (3)	

**Total: .....** 30 hours

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/elang.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/elang.html).

*#Advising note:* 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.

## English Linguistics Major

ISIS major code: EN02

Required courses: .....	18
LING 201 An Introduction to Linguistics .....	3

LING 401 Introduction to Linguistic Science .....	3
LING 402 Modern English Grammar .....	3
LING 420 Introduction to Phonology .....	3
LING 421 The History of the English Language .....	3
LING 425 Introduction to Syntax .....	3

**Electives:** ..... 12

The remaining 12 hours of study are to be selected by the candidates and their advisers. They may include courses from inside or outside the department. Suggested areas include anthropology, composition and rhetoric, 500-level linguistics courses, foreign languages, literature (particularly the early periods), math and computer science, philosophy, psychology, reading, sociology, speech and hearing science, communications and TESOL.

**Total:** ..... 30 hours

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/eng/ugrad/major/eling.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/eng/ugrad/major/eling.html).

*#Advising note:* 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.

## Literature Major

**ISIS major code:** EN03

**Required basic literature courses:** ..... 9

*Choose two courses from the following:* ..... 6

- #LITR 100 The Reading of Literature (satisfies general education requirement IV.1 or IV.2) (3)
- #LITR 101 The Reading of Literature: Fiction (satisfies general education requirement IV.1 or IV.2) (3)
- #LITR 102 The Reading of Literature: Poetry (satisfies general education requirement IV.1 or IV.2) (3)
- #LITR 103 The Reading of Literature: Drama (satisfies general education requirement IV.1 or IV.2) (3)
- #LITR 204 Native American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)
- LITR 251 The Bible as Literature (3)
- #LITR 260 African American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement)
- LITR 210 Introduction to Shakespeare ..... 3  
(No more than nine credit hours of 100- and 200-level literature courses may count toward this major)

**Restricted electives:** ..... 12

*Choose one course from each of the following groups:*

### Group A

- LITR 305 Shakespeare: The Major Comedies and Histories (3)
- LITR 340 The Rise of British Drama to 1642 (3)
- LITR 341 English Drama 1660-1779 (3)
- LITR 411 Medieval Epic and Romance (3)
- LITR 412 English Literature in the Middle Ages (3)
- LITR 413 The Poetry of Chaucer (3)
- LITR 414 English Renaissance Prose and Poetry 1500-1660 (3)
- LITR 415 Literature of the Neo-Classical Period 1660-1798 (3)

### Group B

- LITR 330 The Rise of the British Novel 1720-1832 (3)
- LITR 331 The Development of the British Novel 1832-1914 (3)
- LITR 416 Romantic Rebellion in Britain 1798-1832 (3)
- LITR 417 Victorian and Edwardian Literature 1832-1914 (3)

### Group C

- LITR 333 Modern British and European Novel 1914 to Present (3)
- LITR 342 The Development of Modern Drama (3)
- LITR 401 Modern British and American Poetry 1914 to Present (3)
- LITR 460 Recent Trends in British and American Literature (3)

### Group D

- LITR 328 The Rise of the American Novel to 1920 (3)
- LITR 332 The Modern American Novel 1920 to Present (3)
- LITR 409 The Development of American Literature (3)
- LITR 410 Modern American Literature (3)

**Electives:** ..... 9

Choose from the restricted electives or from the following:

- LITR 300 Narrative in Literature and Film (3)
- LITR 440 Literary Types (3)
- LITR 443 Women in Literature (3)
- LITR 450 Major Authors (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/eng/ugrad/major/lit.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/eng/ugrad/major/lit.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

## Written Communication Major—Concentration in Imaginative Writing

**ISIS major code:** EN0401

In the restricted electives, students may take only the courses listed unless they obtain department permission for substitutions.

**Required courses:** ..... 12

- \*ENGL 335 Imaginative Writing ..... 3
- \*ENGL 422 Writer's Workshop: Fiction or Poetry ..... 3
- Choose two 300- or 400-level literature courses ..... 6

**Restricted electives:** ..... 18

Choose six courses from the following:

- #ENGL 225 Intermediate English Composition (satisfies general education requirement I.3) (3)
- #ENGL 326 Research Writing (satisfies general education requirement I.3) (3)
- ENGL 328 Writing: Style and Language (3)
- ENGL 417 Writing about Controversies (3)
- \*ENGL 422 Writer's Workshop: Fiction or Poetry (3)
- ENGL 501 Writing and Rhetorical Theory I (3)
- ENGL 502 Writing and Rhetorical Theory II (3)
- LING 402 Modern English Grammar (3)
- LING 421 The History of the English Language (3)
- JRNL 215 Journalism (3)
- JRNL 306 Feature Writing (3)
- JRNL 423 Magazine Article Writing (3)

*\*Course may be repeated for additional credit if topic is different.*

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/writimag.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/writimag.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

## Written Communication Major—Concentration in Professional Writing

**ISIS major code:** EN0403

In the restricted electives, students may take only the courses listed unless they obtain department permission for substitutions.

**Required courses:** ..... 21

JRNL 215 Journalism .....	3
#ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3) .....	3
JRNL 306 Feature Writing .....	3
JRNL 312 Introduction to Public Relations .....	3
ENGL 424 Technical Writing .....	3
ENGL 427 Technical Editing .....	3
ENGL 484 Seminar in Written Communications .....	3

**Restricted electives:** ..... 9

#ENGL 225 Intermediate English Composition (satisfies general education requirement I.3) (3)	
#ENGL 326 Research Writing (satisfies general education requirement I.3) (3)	
ENGL 328 Writing: Style and Language (3)	
ENGL 387/ENGL 487 Cooperative Education in English (3)	
ENGL 335 Imaginative Writing (3)	
ENGL 417 Writing about Controversies (3)	
ENGL 422 Writer's Workshop: Fiction or Poetry (3)	
ENGL 428 Writing Computer Documentation (3)	
ENGL 488/489/490 Internship in Technical Writing (1/2/3)	
JRNL 305 Editorial, Column, and Review Writing (3)	
JRNL 314 Writing for Public Relations (3)	
JRNL 387/JRNL 487 Cooperative Education in Journalism/Public Relations (3)	
JRNL 423 Magazine Article Writing (3)	
JRNL 488/489/490 Internship in Journalism/Public Relations (1/2/3)	
INDT 121 Graphic Communication (3)	
#INDT 201 Microcomputer Applications in Technology (satisfies general education requirement I.5) (3)	
INDT 204 Photographic Communication (3)	
INDT 436 Electronic Publishing Technology (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/writprof.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/writprof.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

## Written Communication Major—Concentration in Technical Communications

**ISIS major code:** EN0402

In the restricted electives, students may take only the courses listed unless they obtain department permission for substitutions.

**Required courses:** ..... 21

#ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3) .....	3
ENGL 328 Writing: Style and Language .....	3
ENGL 424 Technical Writing .....	3
ENGL 427 Technical Editing .....	3
ENGL 428 Writing Computer Documentation .....	3
INDT 436 Electronic Publishing Technology .....	3
ENGL 484 Seminar in Written Communications .....	3

**Restricted electives:** ..... 9

#ENGL 225 Intermediate English Composition (satisfies general education requirement I.3) (3)	
#ENGL 326 Research Writing (satisfies general education requirement I.3) (3)	
ENGL 387/ENGL 487 Cooperative Education in English (3)	
ENGL 417 Writing about Controversies (3)	
ENGL 488/489/490 Internship in Technical Writing (1/2/3)	
ENGL 524 Advanced Technical Writing and Research (3)	
JRNL 215 Journalism (3)	
JRNL 306 Feature Writing (3)	
JRNL 314 Writing for Public Relations (3)	
#CTAC 227 Interpersonal Communication (satisfies general education requirement I.3) (3)	
#FA 165 Graphic Design for Non-majors (satisfies general education requirement IV.4) (3)	
INDT 121 Graphic Communication (3)	
#INDT 201 Microcomputer Applications in Technology (satisfies general education requirement I.5) (3)	
INDT 204 Photographic Communication (3)	
#COSC 138 Computer Science I (satisfies general education requirement I.5) (3)	
#CADM 105 Computer Applications for Industry (satisfies general education requirement I.5) (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/writtech.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/writtech.html).

**Total:** ..... 30 hours

*#Advising note:* 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

**ISIS major code:** EN05

Students will be required to complete 30 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 grade point average. For journalism majors, JRNL 213 Introduction to the Print Media is a prerequisite for all courses in the major. JRNL 213 does not count toward the major.

**Required courses:** ..... 21

JRNL 215 Journalism .....	3
JRNL 306 Feature Writing .....	3
JRNL 307 Copy Editing .....	3
JRNL 313 History of American Journalism .....	3
JRNL 453 Advanced Reporting .....	3
JRNL 454 Contemporary Problems in Journalism .....	3
JRNL 455 Journalism and the Law .....	3

**Restricted electives:** ..... 9

Choose three courses from the following:	
JRNL 305 Editorial, Column, and Review Writing (3)	
JRNL 311 Editing Procedures (3)	
JRNL 312 Introduction to Public Relations (3)	

- JRNL 314 Writing for Public Relations (3)  
 JRNL 423 Magazine Article Writing (3)  
 JRNL 387/JRNL 487 Cooperative Education in Journalism/Public Relations (3)  
 JRNL 488/489/490 Internship in Journalism/Public Relations (1/2/3)  
 #ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3) (3)  
 ENGL 328 Writing: Style and Language (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/eng/ugrad/major/jrnl.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/eng/ugrad/major/jrnl.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

## Interdisciplinary Major in Public Relations

ISIS major code: EN07

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 English Language and Literature Department. Courses from both the English Language and Literature Department and the Department of Communication and Theatre Arts are offered as requirements and restricted electives.

**Required fundamental courses:** ..... 17-18

- JRNL 215 Journalism ..... 3  
 JRNL 312 Introduction to Public Relations ..... 3  
 JRNL 314 Writing for Public Relations ..... 3  
 CTAT 141 Introduction to Radio-TV-Film Production ..... 3  
 #CTAC 224 Public Speaking (satisfies general education requirement I.3) or CTAC 350 Persuasion ..... 3  
*One of:* (satisfies general education requirement I.2) ..... 2-3  
 #CTAS 121 Fundamentals of Speech (2)  
 #CTAS 124 Fundamentals of Speech (3)

**Required advanced courses:** ..... 18

- JRNL 306 Feature Writing ..... 3  
 JRNL 408 Case Studies in Public Relations ..... 3  
 CTAC 475 Research in Speech Communication ..... 3  
*One of:* ..... 3  
 JRNL 490 Internship in Journalism/Public Relations (3)  
 JRNL 487 Cooperative Education in Journalism/Public Relations (3)  
*One of:* ..... 3  
 CTAT 334 Radio-Television News (3)  
 CTAT 344 Continuity Writing for Radio-Television-Film (3)  
*One of:* ..... 3  
 CTAC 354 Organizational Communication (3)  
 CTAC 357 Interviewing as Communication (3)

**Restricted electives:** ..... 6

- JRNL 307 Copy Editing (3)  
 JRNL 311 Editing Procedures (3)  
 JRNL 423 Magazine Article Writing (3)  
 JRNL 455 Journalism and the Law (3)  
 \*JRNL 387/JRNL 487 Cooperative Education in Journalism/Public Relations (3)  
 \*JRNL 488/489/490 Internship in Journalism/Public Relations (1/2/3)  
 #CTAC 224 Public Speaking (satisfies general education requirement I.3) or CTAC 350 Persuasion (whichever is not chosen above) (3)

- #CTAC 227 Interpersonal Communication (satisfies general education requirement I.3) or CTAC 359 Small Group Communication (whichever is not chosen above) (3)  
 CTAT 241 Radio-Television-Film Announcing (3)  
 CTAT 334 Radio-Television News or CTAT 344 Continuity Writing for Radio-Television-Film (whichever is not chosen above) (3)  
 \*CTAC 387/388/389 Cooperative Education in Communication (1/2/3)  
 \*CTAC 487/488/489 Internship in Communication (1/2/3)  
 #FA 165 Graphic Design for Non-majors (satisfies general education requirement IV.4) (3)  
 INDT 204 Photographic Communication (3)  
 INDT 436 Electronic Publishing Technology (3)

*\*Students may earn a maximum of six co-op/internship credits*

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/eng/ugrad/major/pr.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/eng/ugrad/major/pr.html).

**Total:** ..... 41-42 hours

*#Advising note:* 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.

## Interdisciplinary Major in Children's Literature and Drama/Theatre for the Young

ISIS major code: EN08

**Required courses:** ..... 26-27

*Choose two courses from the following:* ..... 6

- #LITR 100 The Reading of Literature (satisfies general education requirement IV.1 or IV.2) (3)  
 #LITR 101 The Reading of Literature: Fiction (satisfies general education requirement IV.1 or IV.2) (3)  
 #LITR 102 The Reading of Literature: Poetry (satisfies general education requirement IV.1 or IV.2) (3)  
 #LITR 103 The Reading of Literature: Drama (satisfies general education requirement IV.1 or IV.2) (3)  
 #LITR 204 Native American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)  
 LITR 210 Introduction to Shakespeare (3)  
 LITR 251 The Bible as Literature (3)  
 #LITR 260 African American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)  
 #CTAR 222 Drama and Play in Human Experience (satisfies general education requirement IV.4) ..... 3  
 CTAR 323 Improvising and Role-Play ..... 3  
 CTAR 324 Oral Interpretation of Literature for the Young ..... 3  
 LITR 207 Introduction to Children's Literature ..... 3  
*One of:* ..... 3  
 ENGL 450 Children's Literature: Criticism and Response (3)  
 ENGL 451 Writing about Controversy in Literature for the Young (3)  
*One of:* ..... 3  
 LITR 351 World Mythology (3)  
 LITR 352 Folk Literature: Ballads and Folk Tales (3)



- One of: (satisfies general education requirement I.2) ..... 2-3
  - #CTAS 121 Fundamentals of Speech (2)
  - #CTAS 124 Fundamentals of Speech (3)

**Restricted electives:** ..... 9-10

- Choose nine to 10 credit hours from the following:
- #LITR 204 Native American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)
  - LITR 210 Introduction to Shakespeare (3)
  - LITR 251 The Bible as Literature, LITR 351 World Mythology (3)
  - LITR 352 Folk Literature: Ballads and Folk Tales (3)
  - LITR 401 Modern British and American Poetry 1914 to Present (3)
  - ENGL 451 Writing about Controversy in Literature for the Young (3)
  - CTAA 168/CTAA 268/CTAA 368/CTAA 468 Interpretation (1 each)
  - #CTAO 210 Interpretative Reading (satisfies general education requirement IV.2) (3)
  - CTAR 322 Theatre for the Young (3)
  - CTAR 327 Plays for the Young (3)
  - CTAR 497/498/499 Independent Study (1/2/3)
  - RDNG 506 Storytelling (2)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/dty.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/dty.html).

**Total:** ..... 36 hours

*#Advising note:* 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.

## English and American Language and Literature Major

### Secondary Teacher Certification

**ISIS major code:** EN36

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 certification test covering this field is #02, "English."

**Teaching Major** ..... 36

- LING 201 An Introduction to Linguistics ..... 3
- LITR 210 Introduction to Shakespeare ..... 3
- #ENGL 227 Writing about Literature (satisfies general education requirement I.3) ..... 3
- ENGL 408 Writing for Writing Teachers ..... 3
- One of: (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) .... 3
  - #LITR 204 Native American Literature (3)
  - #LITR 260 African American Literature (3)
- One of: ..... 3
  - ENGL 328 Writing: Style and Language (3)
  - ENGL 417 Writing about Controversies (3)
- One of: ..... 3
  - LING 401 Introduction to Linguistic Science (3)
  - LING 402 Modern English Grammar (3)
  - LING 421 The History of the English Language (3)

- One of: ..... 3
  - LITR 305 Shakespeare: The Major Comedies and Histories (3)
  - LITR 340 The Rise of British Drama to 1642 (3)
  - LITR 341 English Drama 1660-1779 (3)
  - LITR 411 Medieval Epic and Romance (3)
  - LITR 412 English Literature in the Middle Ages (3)
  - LITR 413 The Poetry of Chaucer (3)
  - LITR 414 English Renaissance Prose and Poetry 1500-1660 (3)
  - LITR 415 Literature of the Neo-Classical Period 1660-1798 (3)
- One of: ..... 3
  - LITR 330 The Rise of the British Novel 1720-1832 (3)
  - LITR 331 The Development of the British Novel 1832-1914 (3)
  - LITR 416 Romantic Rebellion in Britain 1798-1832 (3)
  - LITR 417 Victorian and Edwardian Literature 1832-1914 (3)
- One of: ..... 3
  - LITR 333 Modern British and European Novel 1914 to Present (3)
  - LITR 342 The Development of Modern Drama (3)
  - LITR 401 Modern British and American Poetry 1914 to Present (3)
  - LITR 460 Recent Trends in British and American Literature (3)
- One of: ..... 3
  - LITR 328 The Rise of the American Novel to 1920 (3)
  - LITR 332 The Modern American Novel 1920 to Present (3)
  - LITR 409 The Development of American Literature (3)
  - LITR 410 Modern American Literature (3)
- One of: ..... 3
  - Any course listed above but not taken
  - #ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3) (3)
  - ENGL 335 Imaginative Writing (3)
  - JRNL 215 Journalism (3)
  - LING 205 English Words (3)
  - LING 310 African American Language (3)
  - LING 340 Language and Culture (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/eall\\_ts.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/eng/ugrad/major/eall_ts.html).

*#Advising note:* 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.

## English and American Language and Literature Minor

**ISIS minor code:** EN06

- Required courses:** ..... 15
- LING 201 An Introduction to Linguistics ..... 3
  - #ENGL 227 Writing about Literature (satisfies general education requirement I.3) ..... 3
  - ENGL 408 Writing for Writing Teachers ..... 3
  - LITR 305 Shakespeare: The Major Comedies and Histories ..... 3

*One of:* (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) .... 3  
 #LITR 204 Native American Literature (3)  
 #LITR 260 African American Literature (3)

**Restricted electives:** ..... 9  
 One literature class at the 300 or 400 level ..... 3  
 Two classes at the 200, 300 or 400 level in LITR, ENGL or LING ..... 6

**Total:** ..... 24 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## English Language Minor

**ISIS minor code:** EN01

**Required Courses:** ..... 12

#ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3) ..... 3  
 LING 201 An Introduction to Linguistics ..... 3  
*One of:* ..... 3  
 ENGL 328 Writing: Style and Language (3)  
 ENGL 417 Writing about Controversies (3)  
*One of:* ..... 3  
 LING 205 English Words (3)  
 LING 402 Modern English Grammar (3)  
 LING 421 The History of the English Language (3)

**Restricted Electives:** ..... 9

LING 310 African American Language (3)  
 LING 340 Language and Culture (3)  
 LING 497 Independent Study (3)  
 any other LING course approved by the undergraduate adviser  
 #ENGL 225 Intermediate English Composition (satisfies general education requirement I.3) (3)  
 #ENGL 326 Research Writing (satisfies general education requirement I.3) (3)  
 ENGL 387/ENGL 487 Cooperative Education in English (3)  
 ENGL 424 Technical Writing (3)  
 ENGL 427 Technical Editing (3)  
 ENGL 428 Writing Computer Documentation (3)  
 ENGL 484 Seminar in Written Communications (3)  
 JRNL 215 Journalism (3)  
 JRNL 306 Feature Writing (3)  
 JRNL 307 Copy Editing (3)  
 JRNL 314 Writing for Public Relations (3)  
 JRNL 423 Magazine Article Writing (3)  
 JRNL 453 Advanced Reporting (3)

**Total:** ..... 21 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## English Linguistics Minor

**ISIS minor code:** EN09

**Required courses:** ..... 6

LING 201 An Introduction to Linguistics ..... 3  
 LING 401 Introduction to Linguistic Science ..... 3

**Restricted electives:** ..... 15

Any LING course not taken above  
 LITR 412 English Literature in the Middle Ages (3)  
 LITR 413 The Poetry of Chaucer (3)

**Total:** ..... 21 hours

## Literature Minor

**ISIS minor code:** EN03

**Required courses:** ..... 9

Choose two courses from the following: ..... 6

#LITR 100 The Reading of Literature (satisfies general education requirement IV.1 or IV.2) (3)  
 #LITR 101 The Reading of Literature: Fiction (satisfies general education requirement IV.1 or IV.2) (3)  
 #LITR 102 The Reading of Literature: Poetry (satisfies general education requirement IV.1 or IV.2) (3)  
 #LITR 103 The Reading of Literature: Drama (satisfies general education requirement IV.1 or IV.2) (3)  
 #LITR 204 Native American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)  
 LITR 251 The Bible as Literature (3)  
 #LITR 260 African American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)  
 LITR 210 Introduction to Shakespeare ..... 3

**Restricted electives:** ..... 6

Choose one course from the following: ..... 3

LITR 305 Shakespeare: The Major Comedies and Histories (3)  
 LITR 330 The Rise of the British Novel 1720-1832 (3)  
 LITR 331 The Development of the British Novel 1832-1914 (3)  
 LITR 340 The Rise of British Drama to 1642 (3)  
 LITR 341 English Drama 1660-1779 (3)  
 LITR 411 Medieval Epic and Romance (3)  
 LITR 412 English Literature in the Middle Ages (3)  
 LITR 413 The Poetry of Chaucer (3)  
 LITR 414 English Renaissance Prose and Poetry 1500-1660 (3)  
 LITR 415 Literature of the Neo-Classical Period 1660-1798 (3)  
 LITR 416 Romantic Rebellion in Britain 1798-1832 (3)  
 LITR 417 Victorian and Edwardian Literature 1832-1914 (3)

Choose one course from the following: ..... 3

LITR 328 The Rise of the American Novel to 1920 (3)  
 LITR 332 The Modern American Novel 1920 to Present (3)  
 LITR 333 Modern British and European Novel 1914 to Present (3)  
 LITR 342 The Development of Modern Drama (3)  
 LITR 401 Modern British and American Poetry 1914 to Present (3)  
 LITR 410 Modern American Literature (3)  
 LITR 460 Recent Trends in British and American Literature (3)

**Free electives:** ..... 6-9

Choose from courses in literature, except the following:

LITR 207 Introduction to Children's Literature, LITR 352 Folk Literature: Ballads and Folk Tales.

No more than nine credit hours of 100- and 200-level literature courses may count toward this minor.

**Total:** ..... 21-24 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Writing Minor

**ISIS minor code: EN02**

**Required courses:** ..... 9

- ENGL 328 Writing: Style and Language ..... 3
- One of: ..... 3
  - #ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3) (3)
  - #ENGL 326 Research Writing (satisfies general education requirement I.3) (3)
  - ENGL 335 Imaginative Writing (3)
- One of: ..... 3
  - ENGL 417 Writing about Controversies (3)
  - ENGL 422 Writer's Workshop: Fiction or Poetry (3)
  - ENGL 424 Technical Writing (3)

**Restricted electives:** ..... 12

- Choose 12 credits from the following:
- Any course listed as a requirement above including repeats of ENGL 335 Imaginative Writing or ENGL 422 Writer's Workshop: Fiction or Poetry if the topics are different, and #ENGL 225 Intermediate English Composition (satisfies general education requirement I.3) (3)
  - #ENGL 323 Writing in the Professional World (satisfies general education requirement I.3) (3)
  - ENGL 427 Technical Editing (3)
  - ENGL 428 Writing Computer Documentation (3)
  - JRNL 215 Journalism (3)
  - JRNL 306 Feature Writing (3)
  - JRNL 423 Magazine Article Writing (3)
  - CTAT 344 Continuity Writing for Radio-Television-Film (3)
  - CTAR 360 Dramatic Composition (3)
  - CTAR 361 Dramatic Writing (3)

**Total:** ..... 21

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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 Minor

**ISIS minor code: EN04**

**Required courses:** ..... 15

- JRNL 215 Journalism ..... 3
- JRNL 306 Feature Writing ..... 3
- JRNL 307 Copy Editing ..... 3
- JRNL 313 History of American Journalism ..... 3
- JRNL 454 Contemporary Problems in Journalism ..... 3

**Restricted electives:** ..... 9

Choose three courses from the following:

- #ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3) (3)
- ENGL 328 Writing: Style and Language (3)
- ENGL 424 Technical Writing (3)
- JRNL 305 Editorial, Column, and Review Writing (3)
- JRNL 311 Editing Procedures (3)
- JRNL 312 Introduction to Public Relations (3)
- JRNL 423 Magazine Article Writing (3)
- JRNL 453 Advanced Reporting (3)
- CTAT 141 Introduction to Radio-TV-Film Production (3)
- CTAT 334 Radio-Television News (3)
- CTAT 344 Continuity Writing for Radio-Television-Film (3)
- #FA 165 Graphic Design for Non-majors (satisfies general education requirement IV.4) (3)
- INDT 121 Graphic Communication (3)
- INDT 204 Photographic Communication (3)

**Total:** ..... 24

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Children's Literature Minor

**ISIS minor code: EN08**

LITR 207 Introduction to Children's Literature ..... 3

One of: ..... 3

- ENGL 450 Children's Literature: Criticism and Response (3)
- ENGL 451 Writing about Controversy in Literature for the Young (3)

Two of: ..... 6

- #LITR 100 The Reading of Literature (satisfies general education requirement IV.1 or IV.2) (3)
- #LITR 101 The Reading of Literature: Fiction (satisfies general education requirement IV.1 or IV.2) (3)
- #LITR 102 The Reading of Literature: Poetry (satisfies general education requirement IV.1 or IV.2) (3)
- #LITR 103 The Reading of Literature: Drama (satisfies general education requirement IV.1 or IV.2) (3)

LITR 251 The Bible as Literature (3)

#LITR 260 African American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)

Three of: ..... 9

- #LITR 204 Native American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)
- LITR 210 Introduction to Shakespeare (3)
- LITR 251 The Bible as Literature (3)
- LITR 351 World Mythology (3)
- LITR 352 Folk Literature: Ballads and Folk Tales (3)
- ENGL 451 Writing about Controversy in Literature for the Young (3)

**Total:** ..... 21

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## English and American Language and Literature Minor

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

ISIS minor code: EN36

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 certification test covering this field is #02, "English."

LING 201 An Introduction to Linguistics .....	3
#ENGL 227 Writing about Literature (satisfies general education requirement I.3) .....	3
ENGL 408 Writing for Writing Teachers .....	3
One of: .....	3
#LITR 204 Native American Literature (satisfies general education requirement IV.2 and the cross-cultural/ international studies requirement) (3)	
#LITR 260 African American Literature (satisfies general education requirement IV.2 and the cross-cultural/ international studies requirement) (3)	
LITR 305 Shakespeare: The Major Comedies and Histories 3 One literature class at the 300 or 400 level .....	3
*Two classes at the 200, 300 or 400 level in LITR, ENGL or LING .....	6
<b>Total: .....</b>	<b>24 hours</b>

\*Prospective elementary teachers are advised to take LITR 207, which also meets an elementary education professional requirement

#Advising note: These courses satisfy both general education requirements and requirements of the minor. 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.

### Composition Courses

**ENGL 120 Basic English Composition 3 hrs**  
An introductory course on the composing process, with emphasis on writing short expository essays that follow the conventions for paragraphing, syntax, diction and punctuation in standard American English. Required of students whose SAT verbal scores are below 430 or whose ACT English scores are below 19, as space permits. These students must take ENGL 120 during their first semester at EMU as a prerequisite for ENGL 121. *ENGL 120 does not apply toward the general education requirements.*

**ENGL 121 English Composition 3 hrs**  
The fundamental skills of reading, reasoning and writing with emphasis upon the reading and analysis of prose selections and upon basic writing matters, such as thesis, organization, support and development, paragraphing, sentence structure, word choice, punctuation and documentation. Frequent papers and conferences.

**ENGL 177/178/179 Special Topics 1/2/3 hrs**  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ENGL 225 Intermediate English Composition 3 hrs**  
A course that explores the principles and strategies of effective writing with emphasis on argument and persuasion.  
*Prereq: ENGL 121 and sophomore standing.*

**ENGL 227 Writing about Literature 3 hrs**  
An intermediate writing course that introduces students to a variety of critical approaches to literature and that teaches reading and writing as interrelated activities.

*Prereq: ENGL 121 and two courses in literature. Major or minor in the English Department or department permission.*

**ENGL 277/278/279 Special Topics 1/2/3 hrs**  
An examination of topics in English not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.  
*Prereq: ENGL 121.*

**ENGL 308 Teaching English in the Secondary Schools 3 hrs**  
For secondary English education majors with focus on appropriate methods and materials for teaching language arts in grades 7-12. Special attention will be given to lesson planning, evaluation techniques and classroom management. *Does not count toward majors or minors.*  
*Prereq: Taken the term before student teaching. Not open to students on academic probation. Must have at least a 2.75 GPA in major.*

**ENGL 323 Writing in the Professional World 3 hrs**  
Prepares juniors and seniors majoring in education, the humanities and the social sciences to write in their profession.  
*Prereq: ENGL 121 and junior standing. Not open to students with credit in ENGL 324.*

**ENGL 324 Principles of Technical Communication 3 hrs**  
A course for juniors and seniors who wish to study the style and focus of communication that is particularly appropriate to the fields of science and technology.  
*Prereq: ENGL 121 and junior standing. Not open to students with credit in ENGL 323.*

**ENGL 326 Research Writing 3 hrs**  
A course designed to explore the strategies, format and styles of writing appropriate for academic research with emphasis on the student's own field of study.  
*Prereq: ENGL 121 and junior standing.*

**ENGL 328 Writing: Style and Language 3 hrs**  
An advanced writing course focusing on the interrelationships among purpose, audience, style, the social and political nature of language, and electronic writing.  
*Prereq: JRNL 215, or ENGL 225, or ENGL 323, or ENGL 324, or ENGL 326.*

**ENGL 335 Imaginative Writing 3 hrs**  
The study and practice of the techniques of imaginative writing, including poetry and prose fiction. The elements of narration, including description, character development, plot structure and dialogue will be emphasized. Course may be repeated for additional credit if topic is different.  
*Prereq: One 200- or 300- or 400-level LITR course.*

**ENGL 377/378/379 Special Topics 1/2/3 hrs**  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ENGL 387 Cooperative Education in English 3 hrs**  
Employment for pay in a business or industry chosen to provide practical experience in the use of English skills. Work experiences generally are alternated with full-time attendance at the University.  
*Prereq: Junior standing. Admittance by application only.*

**ENGL 408 Writing for Writing Teachers 3 hrs**  
A writing course for students preparing to teach English in secondary schools. Students develop their skills as writers and learn how to teach



writing. Special focus on recent composition research, theory, and practices, and on strategies, materials and evaluation techniques.

*Prereq: Any two ENGL courses at the 200, 300 or 400 level. Admission to the College of Education.*

**ENGL 417 Writing about Controversies** 3 hrs  
The reading, analysis, and writing of argumentative essays on different types of controversies, with emphasis on how to use various types of arguments and appeals for different readers and on the different forms of written arguments.

*Prereq: Any two ENGL courses at the 200- or 300-level.*

**ENGL 422 Writer's Workshop: Fiction or Poetry** 3 hrs  
A seminar workshop for the student who wants more experience in imaginative writing. The class schedule will specify fiction or poetry for each particular workshop. This course may be repeated for additional credit if topic is different.

*Prereq: ENGL 335 and two 200- or 300- or 400-level LITR courses.*

**ENGL 424 Technical Writing** 3 hrs  
An advanced work shop that prepares students to communicate, particularly to write, on the job.

*Prereq: ENGL 324.*

**ENGL 427 Technical Editing** 3 hrs  
Editing of technical material for publication. Principles of style, format, graphics layout and publication management.

*Prereq: ENGL 324.*

**ENGL 428 Writing Computer Documentation** 3 hrs  
An advanced writing course that introduces students to the principles of designing, preparing and testing documents common in the computer industry, particularly software documentation for users.

*Prereq: COSC 136 and ENGL 324, or department permission.*

**ENGL 450 Children's Literature: Criticism and Response** 3 hrs  
Practical criticism of children's literature, prose and poetry, designed to help students develop critical judgment and a clear prose style. Applies toward the minor in children's literature and the interdisciplinary major in children's literature and drama/theatre for the young.

*Prereq: LITR 207.*

**ENGL 451 Writing about Controversy in Literature for the Young** 3 hrs

This course will deal with strategies for the collection, organization and presentation of materials dealing with controversial issues in literature for young adults.

*Prereq: ENGL 121 and LITR 207, or department permission.*

**ENGL 477/478/479 Special Topics** 1/2/3 hrs  
An examination of topics in English not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: ENGL 121 and one writing course at the 200 level or above, or department permission.*

**ENGL 484 Seminar in Written Communications** 3 hrs  
A seminar requiring students to assess their progress in the major and to consider how their beliefs and practices concerning written communications relate to larger social and rhetorical considerations. Portfolio.

*Prereq: ENGL 328 and ENGL 424.*

**ENGL 487 Cooperative Education in English** 3 hrs  
Employment for pay in a business or industry chosen to provide practical experience in the use of English skills. Work experiences generally are alternated with full-time attendance at the University.

*Prereq: Senior standing. Admittance by application only.*

**ENGL 488/489/490 Internship in Technical Writing** 1/2/3 hrs  
Optional, practical on-the-job work experience for recommended students electing an opportunity provided by the department or finding an appropriate outside opportunity subsequently approved by the intern

supervisor; paid or nonpaid. One hour credit for 10-15 hours per week; two hours for 16-25 hours; three hours for 26 and above.

*Prereq: Junior or senior standing and recommendation of technical writing professor. ENGL 324; cumulative 3.0 GPA.*

**ENGL 497/498/499 Independent Study** 1/2/3 hrs  
An intensive study of a topic not offered in the regular curriculum, the particular topic to be defined (and credit hours set) by the teacher and student, subject to approval by the curriculum committee. Restricted to students taking majors or minors in the English Language and Literature Department.

*Prereq: Nine hours in the appropriate major or minor.*

## Journalism and Public Relations Courses

**JRNL 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**JRNL 213 Introduction to the Print Media** 3 hrs  
An exploration into the multiple effects of print media on American popular culture and vice versa. Understanding the business of news, features, editorials, comics and other media formats. Tracking the development of contemporary media research. Learning to become critical consumers of print media. Student media research.

**JRNL 215 Journalism** 3 hrs  
An introduction to newspaper reporting. Learning to gather information and to write in an approved journalistic style. Courses offer practical instruction and working exercises in interviewing, news story development, lead writing and editing skills. Substantial use of computer lab.

*Prereq: Sophomore standing.*

**JRNL 277/278/279 Special Topics** 1/2/3 hrs  
An examination of topics in journalism not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Sophomore standing.*

**JRNL 305 Editorial, Column, and Review Writing** 3 hrs  
Writing of interpretive articles, editorials, reviews and columns. Aimed at developing the student's critical faculties, it includes the study of public opinion and the efforts to change it, the rhetorical principles of argumentation and persuasion, and the aesthetic principles guiding criticism in the arts.

*Prereq: JRNL 215*

**JRNL 306 Feature Writing** 3 hrs  
Writing of feature and interpretive articles and editorials designed for newspapers or magazines. Emphasis on research, interviewing and logical presentation of informative material. Writing assignments and analysis of writing in the mass media.

*Prereq: JRNL 215.*

**JRNL 307 Copy Editing** 3 hrs  
Practical application of professional techniques for editing copy for newspapers, magazines and books, including basic headline writing, use of pictures, and understanding the laws of libel and copyright and the rights of privacy.

*Prereq: JRNL 215 and JRNL 306.*

**JRNL 311 Editing Procedures** 3 hrs  
Presentation of the written word on the printed page relative to the use of photographs and other illustrations; copy fitting, printers' markings, visual concepts; typographical selection; page makeup; working with graphic artist and printer.

*Prereq: JRNL 215.*

**JRNL 312 Introduction to Public Relations** 3 hrs  
Definition, historic aspects, evolution and ethics of public relations; the practical use of public relations by corporations, not-for-profit organiza-

tions, businesses, institutions and government; correlation of written, oral and visual skills.

*Prereq: JRNL 215, and CTAS 121 or CTAS 124.*

**JRNL 313 History of American Journalism 3 hrs**

A survey of the historical evolution of journalism in the United States, its involvement in the social, economic and political development of the national life and its influences on the decision-making process through its effect on public officials.

*Prereq: Sophomore standing.*

**JRNL 314 Writing for Public Relations 3 hrs**

Practical experience in writing press releases, broadcast announcements, speeches and scripts to present a project or product; preparing brochures, newsletters, annual reports, memos and proposals; implementing public relations campaigns.

*Prereq: JRNL 312.*

**JRNL 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**JRNL 387 Cooperative Education in Journalism/Public Relations 3 hrs**

Employment for pay in the print media, public relations or publishing fields to provide practical experience for skills learned in the classroom. Work experiences generally are alternated with full-time attendance at the University.

*Prereq: Junior or senior standing; admittance by application to the Cooperative Education Office and recommendation approved by a journalism professor.*

**JRNL 408 Case Studies in Public Relations 3 hrs**

Solving problems and managing controversy in the day-to-day pursuit of public relations; legal considerations; crisis communication; professionalism and public responsibility in public relations.

*Prereq: JRNL 312 and JRNL 314.*

**JRNL 423 Magazine Article Writing 3 hrs**

A writing course to develop skills in investigating and writing nonfiction articles longer and more complex than feature or background articles in daily newspapers. Emphasis on individual completion of articles of professional quality.

*Prereq: ENGL 328 or JRNL 306.*

**JRNL 453 Advanced Reporting 3 hrs**

Writing of news stories dealing with such topics as courts, politics, government, finance, labor, education, etc. Emphasis on study and research to provide articles of depth.

*Prereq: JRNL 215.*

**JRNL 454 Contemporary Problems in Journalism 3 hrs**

Emphasis on student investigation, reporting and writing on select problems such as free press vs. fair trial, media accessibility, and the people's right to know.

*Prereq: Junior standing.*

**JRNL 455 Journalism and the Law 3 hrs**

A senior professional course exploring issues of libel, privacy, free press-fair trial and the First Amendment.

*Prereq: JRNL 454.*

**JRNL 477/478/479 Special Topics 1/2/3 hrs**

An examination of topics in journalism not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Junior standing and department permission.*

**JRNL 487 Cooperative Education in Journalism/Public Relations 3 hrs**

Employment for pay in the print media, public relations or publishing fields to provide practical experience for skills learned in the classroom. Work experiences generally are alternated with full-time attendance in the classroom.

*Prereq: Junior or senior standing; admittance by application to the Cooperative Education Office and recommendation approved by a journalism professor.*

**JRNL 488/489/490 Internship in Journalism/Public Relations 1/2/3 hrs**

Optional, practical on-the-job work experience for recommended students electing an opportunity provided by the department or finding an appropriate outside opportunity subsequently approved by the intern supervisor; paid or nonpaid. One hour credit for 10 hours work per week; two hours for 11-17 hours; three hours for 18 and above.

*Prereq: Junior or senior standing and recommendation of journalism professor.*

**JRNL 497/498/499 Independent Study 1/2/3 hrs**

Study of topics not offered in the regular curriculum, the particular topic to be defined (and credit hours set) by the instructor and student, subject to approval by the curriculum committee. Restricted to students taking majors or minors in the English Language and Literature Department.

*Prereq: Nine hours in the appropriate major or minor.*

## English Language and Linguistics Courses

**LING 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**LING 201 An Introduction to Linguistics 3 hrs**

An introduction to phonology, morphology, syntax, the lexicon, semantics, sociolinguistics, psycholinguistics and other concerns.

*Prereq: Sophomore standing.*

**LING 205 English Words 3 hrs**

Principles of sound, form and meaning relationships facilitate the student's mastery of word structure, spelling, use and comprehension in a language science approach to the analysis of native English words and the foreign vocabulary that is frequently used in English speech and writing. Addresses linguistic, social, historical and other factors in the development of English, fostering greater linguistic sophistication and appreciation for the richness of the English language.

**LING 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**LING 310 African American Language 3 hrs**

A survey of the history of African American language from African origins to the present day. Details of the structure (i.e. sounds, words, sentence and discourse patterns) of African American English and its functions in American culture, from everyday language use to its employment in literature and other verbal arts. Special attention is paid to issues resulting from contact between different language varieties and the pervasiveness of linguistic diversity in the U.S. and around the world.

*Prereq: LING 201, or LING 223, or AAS 101.*

**LING 322 Languages of the World 3 hrs**

A study of the relation of language to social behavior and modes of thought in unilingual and multilingual communities.

**LING 340 Language and Culture** 3 hrs  
A survey of the variety of languages 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.  
*Prereq: ANTH 135 or LING 201 or LNGE 223.*

**LING 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**LING 401 Introduction to Linguistic Science** 3 hrs  
An introduction to linguistic theory and analytical procedures. Students will apply theoretical principles to problems of phonological and syntactic analysis.  
*Prereq: LING 201 or LNGE 223.*

**LING 402 Modern English Grammar** 3 hrs  
An introduction to the grammar of modern English: problems in the description and analysis of English grammar.  
*Prereq: Junior standing.*

**LING 415 Women and Language** 3 hrs  
This course analyzes the way that gender is reflected in language structure and linguistic behavior, in both English and other languages. It will consider such topics as gender-related vocabulary and morphology, gender differences in discourse styles, and the question of whether gender-related language differences have neurological correlates or are exclusively social in origin.  
*Prereq: Junior standing or department permission.*

**LING 420 Introduction to Phonology** 3 hrs  
An introduction to the basic principles of modern phonology, beginning with a review of phonetics.  
*Prereq: LING 401.*

**LING 421 The History of the English Language** 3 hrs  
A study of the development of the language from its earliest stages to the present with attention to social influences as well as matters of sound, word formation and sentence structure.  
*Prereq: LING 201 or LING 401.*

**LING 425 Introduction to Syntax** 3 hrs  
The development of a base in syntactic theory, learning both the mechanisms of a transformational grammar and the argumentation used in syntactic analysis.  
*Prereq: LING 401.*

**LING 426 Topics in Linguistics** 3 hrs  
Advanced study in specific areas of linguistics for which the department does not regularly offer a course. The area to be studied will vary and will be determined by the field of specialization of the staff members and by student interest. This course may be taken more than once, providing the topics are different.  
*Prereq: LING 401.*

**LING 434 The Linguistic Analysis of Literature** 3 hrs  
LING 434 will analyze the linguistic structures that underlie such aspects of literary interpretation as point-of-view shift, foregrounding and presupposition.  
*Prereq: LING 201, or LING 401.*

**LING 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**LING 497/498/499 Independent Study** 1/2/3 hrs  
Study of topics not offered in the regular curriculum, the particular topic to be defined (and credit hours set) by the instructor and student, subject to approval by the curriculum committee. Restricted to students taking majors or minors in the English Language and Literature Department.  
*Prereq: Nine hours in the appropriate major or minor.*

### Literature Courses

**LITR 100 The Reading of Literature** 3 hrs  
An introduction to the techniques of critical reading with equal emphasis on prose fiction, poetry and drama. Development of a fundamental understanding and enjoyment of reading.

**LITR 101 The Reading of Literature: Fiction** 3 hrs  
Reading and critical analysis of prose fiction intended to deepen the student's understanding and enjoyment of prose fiction.

**LITR 102 The Reading of Literature: Poetry** 3 hrs  
Reading and critical analysis of poetry intended to deepen the student's understanding and enjoyment of poetry.

**LITR 103 The Reading of Literature: Drama** 3 hrs  
Reading and critical analysis of drama intended to deepen the student's understanding and enjoyment of drama.

**LITR 106/CLAS 106 Rome and America** 6 hrs  
A comparison of the people and culture of ancient Rome and modern America, considering individual hopes and ideals, religious beliefs, and ideas about death, government, morality, love and sex. Team taught by a member of the English Department and a classicist. These courses must be taken concurrently and satisfy two literature requirements. *Note: See Honors Humanities Courses, page 30.*

**LITR 150 Humanity and Technology** 3 hrs  
A brief study of distinctive and influential perceptions of the impact of technology on human values just after the first Industrial Revolution, with critical emphasis on problems concerning the use of special, refined technologies. Primary readings from Thoreau, Mark Twain, Henry Adams, Aldous Huxley, Lewis Mumford and Garrett Hardin. This course satisfies one literature requirement. *Note: See Honors Humanities Courses, page 30.*

**LITR 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**LITR 181 The Legacy of Greece** 3 hrs  
An introduction to Greek epic, drama, poetry, history and philosophy, illustrating the influence of the Greek tradition on western civilization. The literature is read in English translation. Representative examples of Greek architecture and sculpture also are examined. Team taught by a classicist and/or a member of the English Department. This course satisfies one literature requirement. *Note: See Honors Humanities Courses, page 30.*

**LITR 204 Native American Literature** 3 hrs  
Study of the written and oral literature of the Native Americans, with emphasis upon the authored poetry, fiction, autobiography and essay of the twentieth century.  
*Prereq: One 100- or 200-level LITR course.*

**LITR 207 Introduction to Children's Literature** 3 hrs  
A concentrated reading course designed to impart the knowledge necessary for an appreciation and understanding of children's literature and its use in the schools. In addition to reading the classics and the critically acclaimed works of both fiction and nonfiction by modern writers, stu-

dents will study poetry, folklore, and mythology and examine the relationship between illustration and text. *Does not count toward a major or minor in curricula for teachers in junior and senior high school.*

*Prereq: Sophomore standing.*

**LITR 210 Introduction to Shakespeare 3 hrs**

An introduction to at least five of Shakespeare's plays with emphasis upon the tragedies.

*Prereq: One 100- or 200-level LITR course.*

**LITR 251 The Bible as Literature 3 hrs**

Introduction to the literary study of the Bible. The Old Testament is represented chiefly by specimens of narrative and prophetic writings; the New Testament by selected incidents, parables and sayings from the life of Jesus as portrayed in the synoptic gospels. Discussion of Biblical influences upon English and American literature.

*Prereq: One 100- or 200-level LITR course.*

**LITR 260 African American Literature 3 hrs**

Representative American literature by black writers with emphasis upon the 20th century. Readings in poetry, fiction, drama, autobiography and the essay.

*Prereq: One 100- or 200-level LITR course.*

**LITR 277/278/279 Special Topics 1/2/3 hrs**

An examination of topics in literature not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: One 100- or 200-level LITR course.*

**LITR 300 Narrative in Literature and Film 3 hrs**

A study of the aesthetic parallels in narrative technique between certain prose forms (novel, novella, romance, satire) and film as a means of enhancing verbal and visual literacy.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 305 Shakespeare: The Major Comedies and Histories 3 hrs**

A study of at least eight of the principal comedies and histories.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 328 The Rise of the American Novel to 1920 3 hrs**

A critical reading of the American novel from C. B. Brown and J. F. Cooper through World War I. A study of the development of the novel in America from its earliest appearance to its critical maturity.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 330 The Rise of the British Novel 1720-1832 3 hrs**

The British novel from Defoe through Scott, including such figures as Richardson, Fielding, Sterne, Smollett and Austen, and such forms as the picaresque novel, the Gothic novel, the novel of sentiment and the novel of manners.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 331 The Development of the British Novel 1832-1914 3 hrs**

A critical reading of Victorian and Edwardian fiction by such authors as Dickens, the Brontës, Thackeray, Trollope, Eliot, Meredith, Hardy, Moore, Wells and Conrad.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 332 The Modern American Novel 1920 to Present 3 hrs**

A critical reading of significant American novels since World War I as represented by Hemingway, Fitzgerald, Faulkner, Bellow, Ellison and others.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 333 Modern British and European Novel 1914 to Present 3 hrs**

A study of modern British and European novels significant to our own times by such writers as Joyce, Proust, Lawrence, Forster, Wolfe, Kafka,

Camus, Golding, Fowles, Robbe-Grillet, Handke, Calvino and Grass.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 340 The Rise of British Drama to 1642 3 hrs**

A study of British drama from the mystery plays, morality plays and interludes to the revenge tragedies of Kyd, Marlowe, and Webster and the comedies of Jonson and Massinger.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 341 English Drama 1660-1779 3 hrs**

A study of the significant plays from the restoration of Charles II to the closing years of the 18th century.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 342 The Development of Modern Drama 3 hrs**

A study of modern drama from Robertson and Ibsen to the theater of the absurd of Pinter and Beckett, including such figures as Pirandello, Chekhov, Shaw, O'Neill, Williams and Miller.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 351 World Mythology 3 hrs**

A study of the mythological traditions that have most significantly informed western civilization. The myths are discussed as literature and as people's attempts to understand themselves, their society and their physical environment.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 352 Folk Literature: Ballads and Folk Tales 3 hrs**

A reading course in the traditional ballads and folk tales of Europe and North America with emphasis on those that appear in children's literature. Applies toward minor in children's literature only, but may be taken as a free elective.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**LITR 401 Modern British and American Poetry 1914 to Present 3 hrs**

A study of the verse of such major modern British and American poets as Yeats, Auden, Eliot, Pound, Cummings, Stevens, Williams, Thomas, Ashbery and Plath.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 409 The Development of American Literature 3 hrs**

A study of American literature from colonial times to 1890, including such writers as Bradstreet, Franklin, Hawthorne, Melville, Thoreau, Emerson, Whitman, Dickinson, Twain and James.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 410 Modern American Literature 3 hrs**

A study of American literature from 1890 to the present, including such writers as Crane, Frost, Cather, Eliot, O'Neill, Fitzgerald, Faulkner, Hemingway, Bellow, Baldwin, O'Connor and Updike.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 411 Medieval Epic and Romance 3 hrs**

A critical reading of medieval French, German and English epics and romances (and their sources) in translation. The treatment will be both historical and comparative.

*Prereq: Two 100- or 200- or 300-level LITR courses.*



**LITR 412 English Literature in the Middle Ages** 3 hrs  
A survey of Old and Middle English literature from Beowulf to Malory, tracing the themes, genres and literary techniques of early English literature.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 413 The Poetry of Chaucer** 3 hrs  
An introduction to the major works of Chaucer: a close reading of representative poetry.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 414 English Renaissance Prose and Poetry 1500-1660** 3 hrs  
Major authors from the age of Shakespeare to the close of the Renaissance, including the humanists, lyric poets, Spenser, Bacon, Donne and the metaphysicals, and Milton.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 415 Literature of the Neo-Classical Period 1660-1798** 3 hrs  
A study of English literature from the Restoration of Charles II through the second half of the 18th century: Dryden, Swift, Pope, Johnson, Goldsmith, Gray, Collins and others.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 416 Romantic Rebellion in Britain 1798-1832** 3 hrs  
A study of the shift in literary emphasis in Britain from reason to the emotions, imagination and individualism in the works of Wordsworth, Coleridge, Lamb, DeQuincey, Hazlitt, Byron, Shelley and Keats.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 417 Victorian and Edwardian Literature 1832-1914** 3 hrs  
A study of prose and poetry of such authors as Carlyle, Mill, Tennyson, Browning, Ruskin, Arnold, Hopkins, Swinburne, Hardy, Pater, Wilde, Kipling and others.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 440 Literary Types** 3 hrs  
A study of the characteristics of a particular literary genre, independent of chronology, theme or author.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 443 Women in Literature** 3 hrs  
A study of women and their experiences as described in literature.

*Prereq: Two 100- or 200- or 300-level LITR courses.*

**LITR 450 Major Authors** 3 hrs  
An intensive study of a major literary figure or a group of related authors. The particular author to be taught in a given semester will be announced in the class schedule bulletin.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 460 Recent Trends in British and American Literature** 3 hrs  
A study of innovations in recent British and American poetry, fiction or drama. The particular focus of the course to be taught in a given semester will be announced in the class schedule bulletin.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 477/478/479 Special Topics** 1/2/3 hrs  
An examination of topics in literature not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

*Prereq: Three 100- or 200- or 300-level LITR courses.*

**LITR 497/498/499 Independent Study** 1/2/3 hrs  
Study of topics not offered in the regular curriculum, the particular topic to be defined (and credit hours set) by the teacher and student, subject to approval by the curriculum committee. Restricted to students taking majors or minors in the English Language and Literature Department.

*Prereq: Nine hours in the appropriate major or minor.*

## Foreign Languages and Bilingual Studies

Web site: [www.emich.edu/public/foreignlanguages/fl\\_welcome.html](http://www.emich.edu/public/foreignlanguages/fl_welcome.html)

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**Professors:** Jo Ann Aebersold, Ronald C. Cere, William J. Cline, E. Catherine Day, J. Sanford Dugan, James P. Holoka, John R. Hubbard, Steven D. Kirby, Anne G. Nerenz, Benjamin W. Palmer, Sharon A. Robertson, Reynaldo Ruiz

**Associate Professors:** Thomas J. Cullen, Glenn D. Deckert, Elisabeth Morgan, Genevieve Peden, Alfonso Illingworth-Rico, Motoko Tabuse, Thomas R. Vosteen

**Assistant Professor:** Hitomi Oketani, Wendy Wang, Margrit Zinggeler

The Foreign Languages and Bilingual Studies Department offers a variety of traditional and innovative majors and minors in French, German, Japanese, Spanish and English as a second language; a minor in classical studies, a group minor in bilingual-bicultural teacher education leading to either elementary or secondary certification; a group minor in teaching English to speakers of other languages; a group major in language and international trade; a joint degree program (B.A./B.B.A.) in language and world business; and a group major in language, journalism, telecommunications and film.

Students in the language and international trade program with concentrations in business French, German and Spanish are eligible to take examinations administered by Eastern Michigan University leading to certification in their fields.

### Degrees:

Bachelor of Arts and Bachelor of Science

### Programs of Study

#### Majors:

Language and world business  
French for business  
French for secondary education  
French language and literature  
German for business  
German for secondary education  
German language and literature  
Japanese language and culture teaching for K-12 education  
Spanish  
Spanish for business  
Spanish for secondary education  
Language, journalism, telecommunications, and film

#### Minors:

Bilingual-bicultural teacher education (Spanish-English) for elementary, secondary, K-12, and special education-secondary  
Classical Studies  
English as a second language for nonnative speakers of English  
French  
French language  
French language for secondary, K-12, and special education-secondary  
French literature  
French for business  
German language and literature  
German language

German language for secondary, K-12, and special education-secondary  
 German literature  
 German for business  
 Japanese language  
 Spanish language  
 Spanish language for secondary, K-12, and special education-secondary  
 Spanish literature  
 Spanish culture  
 Spanish for business  
 Teaching English to speakers of other languages

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 Foreign Languages and Bilingual Studies Department will assist students to change their registration to the appropriate course, when necessary, without incurring financial penalties.

Listed below are rough 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.).

#### Department Residency Requirements:

1. "Residency," for the purposes of this section, means registering for, attending, and successfully completing the required courses.
2. Major or minor in language, business language, literature or culture (not Language and International Trade):

Department residency requirements are that majors in a foreign language must complete at EMU 12 credit hours consisting of the appropriate courses at the 300 or 400 level for the major chosen. Minors in the foreign language must complete either a) 343 and 344, or b) six (6) hours at the 400 level for which the student has the prerequisites.

3. Language and international trade major:

Students must complete at EMU the following nine credit hours in French, German, Japanese or Spanish: 361, 446 and 447.

#### Oral proficiency interview requirement:

All students on teaching curricula in Foreign Languages and Bilingual Studies shall be rated in the last semester prior to graduation through an interview conducted by an oral proficiency tester certified by ETS-ACTFL.

Graduate study leads to the master of arts degree in Spanish (bilingual bicultural education); in language and international trade; in foreign language with concentrations in French, German and Spanish; and in TESOL (teaching English to speakers of other languages). A major emphasis in French, German or Spanish also can be developed through the master's degree in secondary school teaching or the master's degree in individualized studies. The M.A. degrees are described in the graduate catalog.

#### English as a second language

English as a second language (ESLN) courses are taught in the Foreign Languages and Bilingual Studies Department. These courses carry academic credit; up to 20 hours of ESLN credits may be used as elective credits required for graduation.

Three levels of ESLN instruction are offered: intermediate, advanced and academic support, in both fall and winter terms. Only advanced and academic support levels are offered in the combined spring-summer term.

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 Office. All scores must arrive two weeks before the first day of the term.

Students admitted with an official (not institutional) score of 72 or above on the Michigan English Language Assessment Battery (MELAB) or of 500/173 (paper/computer) or above on the Test of English as a Foreign Language (TOEFL) will not be required to take any ESLN courses. Students admitted with scores of less than 72 or 500/173 (paper/computer) are required to take the departmental placement test before registering. Depending upon test results, students will be placed in either part-time or full-time English (two, three, four or five courses of ESLN) during their first semester. Part-time English students will be allowed to register for other University classes. Students placing in full-time English may not take any other University courses until a later semester. Some students may require two consecutive semesters of full-time English before they can register in other courses.

Once placed in ESLN courses, students must complete each course with a grade of "C" or better in order to move on to the next-highest level the following semester. Students must immediately repeat all ESLN courses in which they receive a "C-" or below. Students starting below the 400 level must continue to enroll in ESLN courses until two 400-level courses are taken. When students have successfully completed ESLN 412 and ESLN 414 or ESLN 416, their admission status is changed from conditional to regular. See page 11 under Admission Policies for information regarding conditional admission status.

As of fall 1990, ESLN 412 Academic ESL Writing (for international students) is considered the equivalent of ENGL 121 English Composition. ESLN 412 will therefore fulfill the general education requirement for English.

Failure to enroll in the required ESLN courses during the first semester, and any required subsequent semesters, will result in the cancellation of University enrollment and a possible loss of tuition for that semester.

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

#### Advising Coordinators:

Bilingual-bicultural teacher education (Spanish): Alfonso Illingworth-Rico

English as a second language: Thomas J. Cullen

French: Genevieve Peden

German: Sharon Robertson

Japanese language and culture teaching: Hitomi Oketani

TESOL: Elisabeth Morgan

Language and international trade: Ronald C. Cere

Spanish: Alfonso Illingworth-Rico

Language and world business: Ronald C. Cere

#### Language and World Business

(Joint B.B.A./B.A. Degree)

#### ISIS major code: BU02

The joint bachelor of business administration/bachelor of arts degree in language and world business is a double degree for undergraduates planning to enter a career in world business or international government and public administration. The major objective of the program is to prepare

students for international careers with business and language skills, along with the knowledge needed to function effectively in the increasingly competitive world economy. The LWB joint degree provides students with both practical, on-site work experience as well as a thorough academic background in international affairs and world enterprise. (See page 202 for details.)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cob/cob/ugrad/major/bbalwb.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cob/cob/ugrad/major/bbalwb.html).

## Group Major in Language and International Trade

**ISIS major code: FL08**

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. No outside minor is needed.

Qualified students in French, German, Japanese and Spanish have the option of participating in a cooperative work exchange in an area of the world where French, German, Japanese or Spanish is spoken. Students may take examinations leading to foreign certification in business French, German or Spanish.

**Required courses:** ..... 57

*Business and economics courses:* ..... 30

Business minor: ..... 21-24

Students must complete requirements for a minor in an operational area of business of their choosing. These areas include 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.

MKTG 460 International Marketing ..... 3

*One of:* ..... 3

ECON 370 Comparative Economic Systems (3)

ECON 480 International Economics (3)

*Language and area studies courses:* ..... 27

Language courses: ..... 18

Students must choose one language in which to specialize—we currently offer French, German, Japanese and Spanish—and must complete 18 hours in that chosen language. This 18-hour minimum must include:

FRNH/GERN/JPNE/SPNH 361 French/German/Japanese/  
Spanish for International Trade (3)

FRNH/GERN/JPNE/SPNH 446/447 Business French/  
German/Japanese/Spanish (3)

One additional language course at the 300 or 400 level and  
one additional language course at the 400 level (6)

Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

**Geography/history courses:** ..... 6

*One of:*

GEOG 316/HIST 316 History and Geography of  
Modern Europe (6)

GEOG 317/HIST 317 History and Geography of  
Spanish America (6)

GEOG 326/HIST 326 History and Geography of  
Modern Asia (6)

These credit hours may be used as electives in history and geography.

Political science courses: ..... 3

*Choose one course from the following:*

PLSC 211 Introduction to Comparative Government (3)

PLSC 212 Introduction to International Politics (3)

PLSC 341 International Law (3)

PLSC 342 International Organizations (3)

PLSC 354 Government and Politics of Canada (3)

PLSC 367 Contemporary Political Systems of Latin  
America (3)

PLSC 412 Comparative Legal Systems (3)

**Field experience:** ..... 3

*One of:*

FLAN 489 Internship in Language and International  
Trade (3)

FLAN 387/FLAN 487 Cooperative Education in Foreign  
Language (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/flabs/ugrad/major/lit.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/flabs/ugrad/major/lit.html).

**Total:** ..... 60 hours

*#Advising note:* 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.

## Group Major in Language, Journalism, Telecommunications, and Film

**ISIS major code: FL09**

**Language component:** ..... 20

Choose one of the languages (French, German or Spanish) and complete the following:

*Required courses:* ..... 12

FRNH/GERN/JPNE/SPNH 343 Composition ..... 3

FRNH/GERN/JPNE/SPNH 344 Conversation ..... 3

FRNH/GERN/SPNH 443 Advanced Grammar and  
Composition ..... 3

FRNH/GERN/JPNE/SPNH 444 Advanced Conversation .... 3

Students with advanced language proficiency will select appropriate courses in consultation with the advising coordinator.

*Restricted electives:* ..... 8

Choose eight credits in the language studied at any level.

**Journalism component:** ..... 18-21

*Required courses:* ..... 12

JRNL 215 Journalism ..... 3

JRNL 306 Feature Writing ..... 3

JRNL 307 Copy Editing ..... 3

JRNL 453 Advanced Reporting ..... 3

*Restricted electives:* ..... 6-9

Choose six to nine credits from the following:

JRNL 311 Editing Procedures (3)

JRNL 313 History of American Journalism (3)

JRNL 314 Writing for Public Relations (3)

JRNL 423 Magazine Article Writing (3)

JRNL 454 Contemporary Problems in Journalism (3)

#ENGL 324 Principles of Technical Communication  
(satisfies general education requirement I.3) (3)

ENGL 417 Writing about Controversies (3)

ENGL 422 Writer's Workshop: Fiction or Poetry (3)

**Telecommunications and film component:** ..... 20-21

*Required courses:* ..... 15

CTAT 130 Introduction to Telecommunications and Film ... 3

CTAT 334 Radio-Television News ..... 3

CTAT 336 Studies in Telecommunications .....	3
#CTAC 374 Intercultural Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) .....	3
CTAT 479 Special Topics: Seminar in International Telecommunications Issues .....	3
<i>Restricted electives:</i> .....	5-6
Choose five to six credits from the following:	
#CTAT 145 Introduction to Film Appreciation (satisfies general education requirement IV.4) (3)	
CTAA 165 Television Laboratory (1)	
CTAA 169 Radio Station WQBR (1)	
#CTAC 227 Interpersonal Communication (satisfies general education requirement I.3) (3)	
CTAT 236 History and Criticism of Radio and Television (3)	
CTAT 241 Radio-Television-Film Announcing (3)	
CTAT 331 Fundamentals of Radio Production and Direction (3)	
CTAT 332 Fundamentals of Television Production and Direction (3)	
CTAT 335 Studies in Film (3)	
CTAT 344 Continuity Writing for Radio-Television-Film (3)	
CTAC 354 Organizational Communication (3)	
CTAC 359 Small Group Communication (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/flabs/ugrad/major/ljtf.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/flabs/ugrad/major/ljtf.html).

**Total:** ..... 60 hours

*#Advising note:* 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.

## French Major

### ISIS major code: FL01

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.

<b>Required courses:</b> .....	18
#FRNH 341 Survey of French Literature (satisfies general education requirement IV.1 or IV.2) .....	3
#FRNH 342 Survey of French Literature (satisfies general education requirement IV.1 or IV.2) .....	3
FRNH 343 French Composition .....	3
FRNH 344 French Conversation .....	3
FRNH 443 Advanced French Grammar and Composition ...	3
FRNH 444 Advanced French Conversation .....	3
<b>Restricted electives:</b> .....	12
Choose six credits at the 400 level; choose an additional six credits in French at any level.	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/flabs/ugrad/major/frn.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/flabs/ugrad/major/frn.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

## French for Business Major

### ISIS major code: FL02

Students majoring or minoring in business French are eligible to take examinations leading to the "Diplôme Supérieur de Français des Affaires" or the "Certificat Pratique de Français Commercial et Economique" granted by the Chamber of Commerce and Industry of Paris and recognized by the French National Ministry of Education. These tests are administered by Eastern Michigan University.

<b>Required courses:</b> .....	24
#FRNH 341 Survey of French Literature (satisfies general education requirement IV.1 or IV.2) .....	3
#FRNH 342 Survey of French Literature (satisfies general education requirement IV.1 or IV.2) .....	3
FRNH 343 French Composition .....	3
FRNH 344 French Conversation .....	3
FRNH 443 Advanced French Grammar and Composition ...	3
FRNH 444 Advanced French Conversation .....	3
FRNH 446 Business French I .....	3
FRNH 447 Business French II .....	3
<b>Restricted electives:</b> .....	6
Choose six credits in French at any level.	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/flabs/ugrad/major/frnbiz.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/flabs/ugrad/major/frnbiz.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

## German for Business Major

### ISIS major code: FL04

Students in business German will be eligible to take examinations recognized by the German-American Chamber of Commerce, the Carl Duisberg Society and the Goethe Institute. All examinations are administered by Eastern Michigan University.

<b>Required courses:</b> .....	24
#GERN 341 Survey of German Literature (satisfies general education requirement IV.1 or IV.2) .....	3
#GERN 342 Survey of German Literature (satisfies general education requirement IV.1 or IV.2) .....	3
GERN 361 German for International Trade .....	3
GERN 443 German Syntax and Advanced Composition .....	3
GERN 446 Business German I .....	3
GERN 447 Business German II .....	3
Additional German courses at the 400 level .....	6
<b>Restricted electives:</b> .....	6
Choose six credits in German at any level.	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/flabs/ugrad/major/gerbiz.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/flabs/ugrad/major/gerbiz.html).

**Total:** ..... 30 hours

*#Advising note:* 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.



## German Language and Literature Major

ISIS major code: FL03

<b>Required courses:</b> .....	<b>18</b>
#GERN 341 Survey of German Literature (satisfies general education requirement IV.1 or IV.2) .....	3
#GERN 342 Survey of German Literature (satisfies general education requirement IV.1 or IV.2) .....	3
GERN 343 German Composition .....	3
GERN 344 German Conversation .....	3
GERN 443 German Syntax and Advanced Composition .....	3
GERN 444 Advanced German Conversation .....	3
<b>Restricted electives:</b> .....	<b>12</b>
Choose six credits in German at the 400 level; choose six credits in German at any level.	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/flabs/ugrad/major/gerlanglit.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/flabs/ugrad/major/gerlanglit.html).

**Total:** ..... **30 hours**

*#Advising note:* 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.

## Spanish Major

ISIS major code: FL05

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.

<b>Required courses:</b> .....	<b>12</b>
SPNH 343 Spanish Grammar and Composition .....	3
SPNH 344 Spanish Conversation and Composition .....	3
SPNH 443 Advanced Spanish Grammar and Composition .....	3
SPNH 444 Advanced Spanish Conversation and Composition .....	3
<b>Restricted electives:</b> .....	<b>18</b>
Choose 12 credits in Spanish at the 300 level or above; choose six credits at any level in consultation with the advising coordinator.	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/flabs/ugrad/major/spa.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/flabs/ugrad/major/spa.html).

**Total:** ..... **30 hours**

## Spanish for Business Major

ISIS major code: FL06

Students with concentrations in business Spanish may take examinations leading to the "Diploma de Español Comercial" and the "Certificado de Español Comercial Básico" granted by the Chamber of Commerce of Madrid in cooperation with the Official School of Languages of Madrid.

Language proficiency in both Spanish and English is required; proficiency will be determined by examination.

<b>Required courses:</b> .....	<b>24</b>
SPNH 301 The Cultures of Spain .....	3
SPNH 302 The Cultures of Spanish America .....	3
#SPNH 342 Survey of Spanish Literature (satisfies general education requirement IV.1 or IV.2) .....	3

#SPNH 352 Survey of Spanish American Literature (satisfies general education requirement IV.1 or IV.2) .....	3
SPNH 361 Spanish for International Trade .....	3
<i>One of:</i> .....	3
SPNH 443 Advanced Spanish Grammar and Composition (3)	
SPNH 456 Scientific and Technical Spanish I (3)	
SPNH 446 Business Spanish .....	3
SPNH 447 Business Spanish .....	3

**Restricted electives:** ..... **6**  
Choose six credits in Spanish at any level in consultation with the advising coordinator.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/flabs/ugrad/major/spabiz.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/flabs/ugrad/major/spabiz.html).

**Total:** ..... **30 hours**

*#Advising note:* 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.

## French Major

### Secondary Teacher Certification

ISIS major code: FL31

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 French, certification code "FA," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #23, "French."

**Teaching major:** ..... **30 hours**

#FRNH 341 Survey of French Literature (satisfies general education requirement IV.1 or IV.2) .....	3
#FRNH 342 Survey of French Literature (satisfies general education requirement IV.1 or IV.2) .....	3
FRNH 343 French Composition .....	3
FRNH 344 French Conversation .....	3
FRNH 443 Advanced French Grammar and Composition ...	3
FRNH 444 Advanced French Conversation .....	3
Six credits in French at the 400 level .....	6
Six credits in French at any level .....	6

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/flabs/ugrad/major/frn\\_ts.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/flabs/ugrad/major/frn_ts.html).

*#Advising note:* 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.

## German Language and Literature Major

### Secondary Teacher Certification

ISIS major code: FL33

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in German, certification code "FB." The certification test covering this field is #24, "German."

**Teaching major:** ..... **30 hours**

#GERN 341 Survey of German Literature (satisfies general education requirement IV.1 or IV.2) .....	3
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#GERN 342 Survey of German Literature (satisfies general education requirement IV.1 or IV.2) .....	3
GERN 343 German Composition .....	3
GERN 344 German Conversation .....	3
GERN 443 German Syntax and Advanced Composition .....	3
GERN 444 Advanced German Conversation .....	3
Six credits in German at the 400 level .....	6
Six credits in German at any level .....	6

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/flabs/ugrad/major/ger\\_ts.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/flabs/ugrad/major/ger_ts.html).

**#Advising note:** 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.

## Japanese Language and Culture Teaching Major K-12 Teacher Certification

**ISIS major code: FL37**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in Japanese, certification code "FL." The certification test covering this field has not yet been developed.

**Teaching major:** ..... 38 hours

#ANTH 245 Culture of Japan (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) .....	3
GEOG 326 History and Geography of Modern Asia .....	3
HIST 326 History and Geography of Modern Asia .....	3
JPNE 212 Intermediate Japanese (satisfies general education requirement I.3) .....	5
JPNE 344 Japanese Conversation .....	3
JPNE 361 Japanese for International Trade .....	3
JPNE 444 Advanced Japanese Conversation .....	3
JPNE 494 Seminar in Japanese Studies .....	3
LNGE 223 Introduction to Language .....	3
<i>One of:</i> .....	3
ANTH 340 Language and Culture (3)	
#CTAC 374 Intercultural Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)	
<i>One of:</i> .....	3
ECON 370 Comparative Economic Systems (Note: has prerequisite of a course in economics) (3)	
ECON 480 International Economics (Note: has prerequisites of #ECON 201 (satisfies general education requirement III.3) and #ECON 202 (satisfies general education requirement III.4)) (3)	
<i>One of:</i> .....	3
PLSC 374 Asian Political Systems (3)	
PLSC 412 Comparative Legal Systems (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/flabs/ugrad/major/jpn\\_tk12.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/flabs/ugrad/major/jpn_tk12.html).

**#Advising note:** 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.

## Spanish Major Secondary Teacher Certification

**ISIS major code: FL35**

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 Spanish, certification code "FF," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #28, "Spanish."

**Teaching major:** ..... 30 hours

SPNH 343 Spanish Grammar and Composition .....	3
SPNH 344 Spanish Conversation and Composition .....	3
SPNH 443 Advanced Spanish Grammar and Composition .....	3
SPNH 444 Advanced Spanish Conversation and Composition .....	3
Twelve credits in Spanish at the 300 level or above .....	12
Six credits in Spanish at any level, in consultation with an adviser .....	6

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/flabs/ugrad/major/spn\\_ts.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/flabs/ugrad/major/spn_ts.html).

**#Advising note:** 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.

## Classical Studies Minor

**ISIS minor code: FL17**

**Required courses:** ..... 12

FA 340 History of Classical Art .....	3
HIST 323 Greek History .....	3
HIST 324 Roman History .....	3
PHIL 230 History of Philosophy: Ancient .....	3

**Restricted electives:** ..... 11-13\*

Choose one of the following groups:

<i>Group A (Greek Language):</i> .....	13
#GREK 121 Beginning Ancient Greek I (satisfies general education requirement I.3) .....	5
#GREK 122 Beginning Ancient Greek II (satisfies general education requirement I.3) .....	5
FLAN 499 Independent Study .....	3
<i>Group B (Latin Language):</i> .....	13
#LATN 121 Beginning Latin I (satisfies general education requirement I.3) .....	5
#LATN 122 Beginning Latin II (satisfies general education requirement I.3) .....	5
FLAN 499 Independent Study .....	3
<i>Group C (Classical Culture and Heritage):</i> .....	11-12
Two of: .....	6
CLAS 106/LITR 106 Rome and America (3)	
CLAS 181/LITR 181 The Legacy of Greece (3)	
LNGE 134 Etymology (3)	
Two of: .....	5-6
LING 205 English Words (3)	
CLAS 301 Mythology (3)	
HIST 302 Near Eastern and Western Religions (3)	
HIST 327 Europe in Early Middle Ages 400-1050 (3)	
HIST 330 Europe in the Renaissance and Reformation (3)	

LITR 351 World Mythology (3)  
 HIST 511 Studies in Ancient History (2)

\*Certain independent study and special topics courses may be counted as restricted electives with the approval of the advising coordinator.

**Total:** ..... 23-25 hours

#Advising note: These courses satisfy both general education requirements and requirements of the minor. 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.

### Group Minor in Teaching English as a Second Language

ISIS minor code: FL15

**Required courses:** ..... 15

- LNGE 223 Introduction to Language ..... 3
- #CTAC 374 Intercultural Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) ..... 3
- TSLN 410 TESOL Methods ..... 3
- TSLN 420 Materials and Tests for TESOL ..... 3
- LNGE 425 Second-Language Acquisition ..... 3

**Restricted electives:** ..... 9

Choose at least one course from each group:  
 Undergraduate linguistics majors in the English department may not count Group 1 courses toward this minor. They must take two courses from either Group 2 or 3, and one course from the remaining group.

*Group 1*

- LING 401 Introduction to Linguistic Science (3)
- LING 402 Modern English Grammar (3)

*Group 2*

- #CTAC 225 Listening Behavior (satisfies general education requirement I.3) (3)
- #CTAC 226 Nonverbal Communication (satisfies general education requirement I.3) (3)
- PSY 304 Learning (3)
- CTAR 323 Improvising and Role-Play (3)
- ENGL 328 Writing: Style and Language (3)
- SPSI 337 Language Acquisition (3)
- CTAC 359 Small Group Communication (3)

*Group 3*

- #SOCL 214/#ANTH 214 Racial and Cultural Minorities (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- SOCL 310 Contemporary American Class Structure (Only international students may use this course) (3)
- ANTH 340/LING 340 (Pre- or coreq.: One year of university-level foreign language study) Language and Culture (3)

**Total:** ..... 24 hours

#Advising note: These courses satisfy both general education requirements and requirements of the minor. 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.

### English as a Foreign Language for Nonnative Speakers of English Minor

ISIS minor code: FL02

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 Foreign Languages and Bilingual Studies and the English Language and Literature departments.

Students who have placed at the 300 level on the departmental placement test will complete all of the following courses. Students who have placed at the 400 level will begin this minor by taking ESLN 412 Academic ESL Writing and ESLN 414 Academic ESL Reading and/or ESLN 416 Academic ESL Speaking and Listening. These students must choose six credit hours from the restricted electives or other courses with the permission of the adviser.

**Required courses:** ..... 21

- ESLN 310 Advanced ESL Grammar or ESLN 312 Advanced ESL Writing ..... 3
- ESLN 314 Advanced ESL Reading or ESLN 316 Advanced ESL Speaking and Listening ..... 3
- ESLN 412 Academic ESL Writing ..... 3
- ESLN 414 Academic ESL Reading ..... 3
- ESLN 416 Academic ESL Speaking and Listening ..... 3
- #ENGL 225 Intermediate English Composition (satisfies general education requirement I.3) or other approved English writing course (written permission required) ..... 3
- #ENGL 326 Research Writing (satisfies general education requirement I.3) ..... 3

**Restricted elective:** ..... 3

- Choose one course from the following:
- LING 201 An Introduction to Linguistics (3)
  - LING 402 Modern English Grammar (3)
  - other English language or linguistics course (written permission required) (3)
  - #CTAC 224 Public Speaking (satisfies general education requirement I.3) (3)
  - CTAC 350 Persuasion (3)
  - CTAC 356 Argumentation and Debate (3)
  - CTAC 359 Small Group Communication (3)
  - other speech communication course (written permission required) (3)
  - Other advanced (speech) courses not including theatre arts courses, with written permission from the ESLN coordinator.

**Total:** ..... 24 hours

#Advising note: These courses satisfy both general education requirements and requirements of the minor. 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.

### French Language and Literature Minor

ISIS minor code: FL03

**Required courses:** ..... 12

- #FRNH 341 Survey of French Literature (satisfies general education requirement IV.1 or IV.2) ..... 3
- #FRNH 342 Survey of French Literature (satisfies general education requirement IV.1 or IV.2) ..... 3
- FRNH 343 French Composition ..... 3
- FRNH 344 French Conversation ..... 3

**Restricted electives:** ..... 8

Choose eight credits in French at any level.

**Total:** ..... 20 hours

#Advising note: These courses satisfy both general education requirements and requirements of the minor. 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.

**French Language Minor**

ISIS minor code: FL04

<b>Required courses:</b> .....	12
FRNH 343 French Composition .....	3
FRNH 344 French Conversation .....	3
FRNH 443 Advanced French Grammar and Composition ...	3
FRNH 444 Advanced French Conversation .....	3
<b>Restricted electives:</b> .....	8
Choose eight credits in French at any level.	
<b>Total:</b> .....	20 hours

**French Literature Minor**

ISIS minor code: FL05

<b>Required courses:</b> .....	12
#FRNH 341 Survey of French Literature (satisfies general education requirement IV.1 or IV.2) .....	3
#FRNH 342 Survey of French Literature (satisfies general education requirement IV.1 or IV.2) .....	3
Courses in French literature at the 400 level .....	6
<b>Restricted electives:</b> .....	8
Choose eight credits in French at any level.	
<b>Total:</b> .....	20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Business French Minor**

ISIS minor code: FL06

Students minoring in business French are eligible to take the examinations listed under the major in business French.

<b>Required courses:</b> .....	18
FRNH 343 French Composition .....	3
FRNH 344 French Conversation .....	3
FRNH 443 Advanced French Grammar and Composition ...	3
FRNH 444 Advanced French Conversation .....	3
FRNH 446 Business French I .....	3
FRNH 447 Business French II .....	3
<b>Restricted electives:</b> .....	2
Choose two credits in French at any level.	
<b>Total:</b> .....	20 hours

**German Language and Literature Minor**

ISIS minor code: FL07

<b>Required courses:</b> .....	12
#GERN 341 Survey of German Literature (satisfies general education requirement IV.1 or IV.2) .....	3
#GERN 342 Survey of German Literature (satisfies general education requirement IV.1 or IV.2) .....	3
GERN 343 German Composition .....	3
GERN 344 German Conversation .....	3
<b>Restricted electives:</b> .....	8
Choose eight credits in German at any level.	
<b>Total:</b> .....	20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**German Language Minor**

ISIS minor code: FL08

<b>Required courses:</b> .....	12
GERN 343 German Composition .....	3
GERN 344 German Conversation .....	3
GERN 443 German Syntax and Advanced Composition .....	3
GERN 444 Advanced German Conversation .....	3
<b>Restricted electives:</b> .....	8
Choose eight credits in German at any level.	
<b>Total:</b> .....	20 hours

**German Literature Minor**

ISIS minor code: FL09

<b>Required courses:</b> .....	12
#GERN 341 Survey of German Literature (satisfies general education requirement IV.1 or IV.2) .....	3
#GERN 342 Survey of German Literature (satisfies general education requirement IV.1 or IV.2) .....	3
Courses in German literature at the 400 level .....	6
<b>Restricted electives:</b> .....	8
Choose eight credits in German at any level.	
<b>Total:</b> .....	20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Business German Minor**

ISIS minor code: FL10

Examinations listed under the major in business German also may be taken by students minoring in this subject.

<b>Required courses:</b> .....	12
<i>One of:</i> (satisfies general education requirement IV.1 or IV.2) .....	3
#GERN 341 Survey of German Literature (3)	
#GERN 342 Survey of German Literature (3)	
GERN 361 German for International Trade .....	3
GERN 443 German Syntax and Advanced Composition .....	3
<i>One of:</i> .....	3
GERN 446 Business German I (3)	
GERN 447 Business German II (3)	
<b>Restricted electives:</b> .....	8
Choose eight credits in German at any level.	
<b>Total:</b> .....	20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Japanese Language Minor**

ISIS minor code: FL16

<b>Required courses:</b> .....	12
JPNE 344 Japanese Conversation and Composition .....	3
JPNE 345 Japanese Composition .....	3
JPNE 361 Japanese for International Trade .....	3
JPNE 444 Advanced Japanese Conversation .....	3



**Restricted electives:** ..... 8  
 Choose eight credits in Japanese at any level in consultation with the advising coordinator.

**Total:** ..... 20 hours

### Spanish Language Minor

**ISIS minor code: FL11**

**Required courses:** ..... 12  
 SPNH 343 Spanish Grammar and Composition ..... 3  
 SPNH 344 Spanish Conversation and Composition ..... 3  
 Choose either of the following options: ..... 6  
 a. SPNH 443 Advanced Spanish Grammar and Composition and SPNH 444 Advanced Spanish Conversation and Composition, or  
 b. Additional courses in Spanish at the 300 level or above

**Restricted electives:** ..... 8  
 Choose eight credits in Spanish at any level in consultation with the advising coordinator.

**Total:** ..... 20 hours

### Spanish Literature Minor

**ISIS minor code: FL12**

**Required courses:** ..... 12  
*Two of:* (satisfies general education requirement IV.1 or IV.2) ..... 6  
 #SPNH 341 Survey of Spanish Literature (3)  
 #SPNH 342 Survey of Spanish Literature (3)  
 #SPNH 351 Survey of Spanish American Literature (3)  
 #SPNH 352 Survey of Spanish American Literature (3)  
 Choose six credits in Spanish at the 300 level or above ..... 6

**Restricted electives:** ..... 8  
 Choose eight credits in Spanish at any level in consultation with the advising coordinator.

**Total:** ..... 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Spanish Culture Minor

**ISIS minor code: FL13**

**Required courses:** ..... 12  
 SPNH 301 The Cultures of Spain ..... 3  
 SPNH 302 The Cultures of Spanish America ..... 3  
 Choose six credits in Spanish at the 300 level or above ..... 6

**Restricted electives:** ..... 8  
 Choose eight credits in Spanish at any level in consultation with the advising coordinator.

**Total:** ..... 20 hours

### Business Spanish Minor

**ISIS minor code: FL14**

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  
*One of:* ..... 3

SPNH 301 The Cultures of Spain (3)  
 SPNH 302 The Cultures of Spanish America (satisfies general education requirement IV.1 or IV.2) (3)

*One of:* (satisfies general education requirement IV.1 or IV.2) ..... 3

#SPNH 342 Survey of Spanish Literature (3)  
 #SPNH 352 Survey of Spanish American Literature (3)

SPNH 361 Spanish for International Trade ..... 3  
 SPNH 446 Business Spanish ..... 3

**Restricted electives:** ..... 8  
 Choose eight credits in Spanish at any level in consultation with the advising coordinator.

**Total:** ..... 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### French Language Minor

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

**ISIS minor code: FL34**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in French, certification code "FA." The certification test covering this field is #23, "French."

FRNH 343 French Composition ..... 3  
 FRNH 344 French Conversation ..... 3  
 FRNH 443 Advanced French Grammar and Composition ... 3  
 FRNH 444 Advanced French Conversation ..... 3  
 Eight credits in French at any level ..... 8

**Total:** ..... 20 hours

### German Language Minor

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

**ISIS minor code: FL38**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in German, certification code "FB." The certification test covering this field is #24, "German."

GERN 343 German Composition ..... 3  
 GERN 344 German Conversation ..... 3  
 GERN 443 German Syntax and Advanced Composition .... 3  
 GERN 444 Advanced German Conversation ..... 3  
 Eight credits in German at any level ..... 8

**Total:** ..... 20 hours

### Bilingual-Bicultural Education Spanish-English Minor

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

**ISIS minor code: FL31**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement

in bilingual Spanish, certification code "YF." The certification test covering this field is #70, "Bilingual Spanish."

Language proficiency in both Spanish and English as determined by examination	
FLAN 421 History and Theory of Bilingual Education .....	3
FLAN 422 Teaching Hispanic Culture and Language .....	3
TSLN 410 TESOL Methods .....	3
SPNH 471 Culture and Literature of the Hispanic Groups in the United States .....	3
SPNH 482 Language of the Hispanic Groups in the United States .....	3
<i>Nine hours from:</i> .....	9
#ANTH 233 Peoples and Cultures of Mexico (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)	
#FLAN 215 The Cultures of Mexican-Americans and Cubans in the United States (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)	
LNGE 223 Introduction to Language (3)	
LING 201 An Introduction to Linguistics (3)	
LING 401 Introduction to Linguistic Science (3)	
LING 402 Modern English Grammar (3)	
GEOG 321 Geography of Latin America (3)	
HIST 457 History of Mexico (3)	
PSY 340 Psychological Perspectives on Prejudice and Discrimination (3)	
#SOCL 214/ANTH 214 Racial and Cultural Minorities (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)	
SPNH 443 Advanced Spanish Grammar and Composition (3)	
SPNH 444 Advanced Spanish Conversation and Composition (3)	

Four credit hours of student teaching must be with English-speaking pupils and four credit hours of student teaching must be in bilingual education.

**Total:** ..... 24 hours

#*Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Spanish Language Minor

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

**ISIS minor code: FL32**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in Spanish, certification code "FF." The certification test covering this field is #28, "Spanish."

SPNH 343 Spanish Grammar and Composition .....	3
SPNH 344 Spanish Conversation and Composition .....	3
One of: .....	6
Either SPNH 443 Advanced Spanish Grammar and Composition (3) and SPNH 444 Advanced Spanish Conversation and Composition (3) or additional courses (6 hours) in Spanish at the 300 level or above.	
Eight credits in Spanish at any level in consultation with the advising coordinator .....	8

**Total:** ..... 24 hours

## French Courses

**FRNH 121 Beginning French** 5 hrs  
Introductory course including practice in listening, speaking, reading and writing in French. Sessions in the language laboratory are part of regular assignments. *Satisfies general education foreign language composition requirement, Area I.*

**FRNH 122 Beginning French** 5 hrs  
Introductory course including practice in listening, speaking, reading and writing in French. Sessions in the language laboratory are part of regular assignments. *Satisfies general education foreign language composition requirement, Area I.*  
*Prereq: FRNH 121 or equivalent. Placement exam required.*

**FRNH 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**FRNH 221 Intermediate French (Reading)** 3 hrs  
Rapid reading of large quantities of French. Materials include readings in literature and civilization. Students who plan to continue in French should take this course concurrently with FRNH 233. *Satisfies general education intermediate or advanced foreign language literature requirement, Area IV.*  
*Prereq: FRNH 122 or equivalent. Placement exam required.*

**FRNH 222 Intermediate French (Reading)** 3 hrs  
Rapid reading of large quantities of French. Materials include readings in literature and civilization. Students who plan to continue in French should take this course concurrently with FRNH 234. *Satisfies general education intermediate or advanced foreign language literature requirement, Area IV.*  
*Prereq: FRNH 221 or equivalent. Placement exam required.*

**FRNH 233 Intermediate French Conversation, Composition, and Grammar** 3 hrs  
A review of grammar; practice in writing and speaking. Sessions in the language laboratory are available. Students who plan to continue in French should take this course concurrently with FRNH 221. *Does not satisfy general education literature requirement. Satisfies general education foreign language composition requirement, Area I.*  
*Prereq: FRNH 122 or equivalent. Placement exam required.*

**FRNH 234 Intermediate French Conversation, Composition, and Grammar** 3 hrs  
A review of grammar; practice in writing and speaking. Sessions in the language laboratory are available. Students who plan to continue in French should take this course concurrently with FRNH 222. *Does not satisfy general education literature requirement. Satisfies general education foreign language composition requirement, Area I.*  
*Prereq: FRNH 233 or equivalent. Placement exam required.*

**FRNH 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**FRNH 341 Survey of French Literature** 3 hrs  
This survey course covers major authors and literary movements from the beginning of French literature to the 19th century. *In French. Satisfies general education intermediate or advanced foreign language literature requirement, Area IV.*  
*Prereq: FRNH 222 or department permission.*

- FRNH 342 Survey of French Literature** 3 hrs  
This survey course covers major authors and literary movements of the 19th and 20th centuries. *In French. Satisfies general education intermediate or advanced foreign language literature requirement, Area IV.*  
*Prereq: FRNH 222 or department permission.*
- FRNH 343 French Composition** 3 hrs  
Review and drill of intermediate and advanced linguistic patterns in French. Written compositions.  
*Prereq: FRNH 234 or department permission.*
- FRNH 344 French Conversation** 3 hrs  
Additional classwork in conversation: improving pronunciation and acquiring a larger, active vocabulary for daily life.  
*Prereq: FRNH 234 or department permission.*
- FRNH 361 French for International Trade** 3 hrs  
This course is intended for students who already have a solid intermediate-level command of French and who wish to acquire minimum professional competence in the French language as it is used in the world of international business. It includes practice in various forms of business communication, both oral and written.  
*Prereq: FRNH 343 or department permission.*
- FRNH 377/378/379 Special Topics** 1/2/3 hrs  
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.  
*Prereq: Department permission.*
- FRNH 388 Internship** 1 hr  
Provides an opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. Credit/no credit.  
*Prereq: Department permission.*
- FRNH 431 Studies in French Theatre** 3 hrs  
A study of select French drama. Specific topic (themes, authors, genres, periods) will vary depending on the instructor's field of specialization and student interest. The course may be repeated for credit with department permission. *In French.*  
*Prereq: FRNH 341, FRNH 342 or department permission.*
- FRNH 432 Studies in French Poetry** 3 hrs  
A study of select French poetry. Specific topic (themes, authors, genres, periods) will vary depending on the instructor's field of specialization and student interest. The course may be repeated for credit with department permission. *In French.*  
*Prereq: FRNH 341, FRNH 342 or department permission.*
- FRNH 433 Studies in French Prose** 3 hrs  
A study of select French prose. Specific topic (themes, authors, genres, periods) will vary depending on the instructor's field of specialization and student interest. The course may be repeated for credit with department permission.  
*Prereq: FRNH 341, FRNH 342 or department permission.*
- FRNH 443 Advanced French Grammar and Composition** 3 hrs  
Review and practice of advanced syntactical patterns. Practice in composition. *In French.*  
*Prereq: FRNH 343.*
- FRNH 444 Advanced French Conversation** 3 hrs  
This course aims to develop advanced fluency. Group discussions are based on the reading of periodical literature. May be repeated for credit.  
*Prereq: FRNH 343 and FRNH 344, or department permission.*
- FRNH 445 French Phonetics** 3 hrs  
Study of the sound system of the French language including both theory and practice. Major focus on the International Phonetic Alphabet as it applies to French. Lecture and practical exercises in class. *In French.*  
*Prereq: FRNH 344.*
- FRNH 446 Business French I** 3 hrs  
Study of principles and practices of business communication in France with emphasis on business correspondence and translation. Introduction to the French economy including business law, industry, business and services. *In French.*  
*Prereq: FRNH 361 or department permission.*
- FRNH 447 Business French II** 3 hrs  
Further study of business practices, business law and the French economy. Emphasis on business correspondence and translation and on French ties with the European economic community, the U.S., the East, developing countries and francophone countries. Prepares student for language proficiency examinations (CCIP diplomas).  
*Prereq: FRNH 446 or department permission.*
- FRNH 451/452 Readings in French** 1/2 hrs  
Special projects in directed readings for majors and minors who have completed the available offerings in French or who, because of most unusual circumstances, are granted department approval to substitute one or both of these for the regular courses.  
*Prereq: FRNH 341, FRNH 342 or department permission.*
- FRNH 466 French Speaking Cultures of the World** 3 hrs  
Survey of the more than two dozen different cultures of the world that make up "la Francophonie." Language and cultural variations that one must know in order to understand and to communicate successfully with people in those cultures. *In French.*  
*Prereq: FRNH 343 and FRNH 344.*
- FRNH 467 French Culture and Civilization** 3 hrs  
A study of pre-World War I French civilization.  
*Prereq: FRNH 343.*
- FRNH 476 20th-Century French Civilization** 3 hrs  
A study of the main events of the 20th century. The major historical and societal movements will be covered. *In French.*  
*Prereq: FRNH 343. Open to juniors and seniors.*
- FRNH 477/478/479 Special Topics** 1/2/3 hrs  
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.  
*Prereq: Department permission.*
- FRNH 488/489 Internship** 2/3 hrs  
Provides an opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. *In French.*  
*Prereq: Department permission.*
- FRNH 490 Intensive French Abroad** 3 hrs  
An intensive spring/summer course offered in a French-speaking environment. Instruction at many different levels. May be counted for equivalent hours on 100 or 200 levels. May be repeated for credit.
- FRNH 497/498/499 Independent Study** 1/2/3 hrs  
Advanced study on an individual research basis in areas not covered in formal course work.  
*Prereq: Department permission.*

## German Courses

- GERN 121 Beginning German** 5 hrs  
Instruction includes pronunciation, aural-oral pattern practice, the fundamentals of grammar, written exercise, reading. Laboratory attendance is required. *Satisfies general education foreign language composition requirement, Area I.*
- GERN 122 Beginning German** 5 hrs  
The goals of the two-course Beginning German sequence are the development of oral and written communication through the use of verbal and nonverbal symbols. The emphasis is on communicative competence (both spoken and written) through the mastery of vocabulary and grammar appropriate to given communicational situations. Besides gaining communicative skills in German, the student can expect to gain some familiarity with modern German culture. *Satisfies general education foreign language composition requirement, Area I.*  
*Prereq: GERN 121 or equivalent. Placement examination required.*
- GERN 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- GERN 221 Intermediate German Reading** 3 hrs  
This course consists of readings in German literature and civilization. Students who plan to continue in German should take GERN 233 concurrently with GERN 221, and GERN 234 concurrently with GERN 222. *Satisfies Area IV of general education requirements.*  
*Prereq: GERN 122 or equivalent. Placement examination required.*
- GERN 222 Intermediate German Reading** 3 hrs  
This course consists of readings in German literature and civilization. Students who plan to continue in German should take GERN 233 concurrently with GERN 221, and GERN 234 concurrently with GERN 222. *Satisfies Area IV of general education requirements.*  
*Prereq: GERN 122 or equivalent. Placement examination required.*
- GERN 233 Intermediate German Conversation, Composition, and Grammar** 3 hrs  
This course requires the student to practice spoken and authentically correct language in the social cultural situations that occur in German-speaking Europe.  
*Prereq: GERN 122 or equivalent.*
- GERN 234 Intermediate German Conversation, Composition, and Grammar** 3 hrs  
This course requires the student to practice spoken and authentically correct language in the social cultural situations that occur in German-speaking Europe.  
*Prereq: GERN 233 or equivalent.*
- GERN 277/278/279 Special Topics** 1/2/3 hrs  
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.  
*Prereq: Department permission.*
- GERN 341 Survey of German Literature** 3 hrs  
This is an introduction to literary criticism as applied to German literature. Extensive readings of materials in German literature and culture. It covers an introduction to literature analysis and major writers and trends in modern German poetry and short stories, and is a prerequisite for all later courses in literature. Students must have sufficient comprehension to follow lectures in German.  
*Prereq: GERN 222 or department permission.*
- GERN 342 Survey of German Literature** 3 hrs  
This is the second part of the introductory survey course in German Literature. It continues the introduction to literary criticism begun in GERN 341, and encourages students to apply principles of analysis to a chronological selection of literary works from the beginning of German literature to 1940. It is a prerequisite for all later courses in literature. Students must have sufficient comprehension to follow lectures in German.  
*Prereq: GERN 222 and GERN 341, or department permission.*
- GERN 343 German Composition** 3 hrs  
Writing for a variety of purposes and a systematic grammar review. Frequent written assignments. *In German.*  
*Prereq: GERN 234 or department permission.*
- GERN 344 German Conversation** 3 hrs  
Builds on the foundation in speaking skills acquired in GERN 233 and GERN 234. Emphasizes vocabulary and idiom building and improvement in basic sentence structure. Readings, slides, tapes, films and other aids stimulate discussion. Meets three times per week.  
*Prereq: GERN 234 or department permission.*
- GERN 361 German for International Trade** 3 hrs  
Develops working knowledge of commercial material including economics and business in multinational setting. Cross-cultural references provide opportunity for comparative and contrastive analysis of American and German cultural patterns in a business setting.  
*Prereq: GERN 343 or department permission.*
- GERN 377/378/379 Special Topics** 1/2/3 hrs  
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.  
*Prereq: Department permission.*
- GERN 388 Internship** 1 hr  
An opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. Credit/no credit.  
*Prereq: Department permission.*
- GERN 425 German Literature from the Middle Ages to the Baroque** 3 hrs  
Readings from the period are discussed in class meetings and taken as topics for student essays and reports. The literature is considered in the broad context of culture. *In German.*  
*Prereq: GERN 342 or department permission.*
- GERN 426 German Literature from 1750-1850** 3 hrs  
The literature of Germany from the preclassical period through Romanticism is discussed in class meetings and treated in student essays and reports. Perspectives of the other arts and of political and social developments enable the student to appreciate the literature in the context of European civilization. *In German.*  
*Prereq: GERN 342 or department permission.*
- GERN 427 German Literature from 1850-1945** 3 hrs  
Selections from the literature of Poetic Realism, Biedermeier, Naturalism, Neo-Romanticism and Expressionism viewed against the background of political and cultural history. Classroom discussion and student reports.  
*Prereq: GERN 342 or department permission.*
- GERN 428 German Literature from 1945 to the Present** 3 hrs  
Those works that have shaped and are shaping current German literary and cultural life. Classroom discussion, papers and reports. *In German.*  
*Prereq: GERN 342 or department permission.*



**GERN 443 German Syntax and Advanced Composition 3 hrs**

Builds on the foundation in written expression acquired in GERN 343. Intensive vocabulary and idiom writing; treatment of the more complex structural features of German, and stylistics. Frequent assignments increase the student's ability to write for a variety of purposes.

*Prereq: GERN 343 and GERN 344, or department permission.*

**GERN 444 Advanced German Conversation 3 hrs**

Development of advanced conversational fluency. A variety of media are employed to increase the student's facility in oral comprehension, and to stimulate conversational exchange among the class members.

*Prereq: GERN 343 and GERN 344, or department permission.*

**GERN 446 Business German I 3 hrs**

The idiom and terminology of the German economy and economic geography. Emphasis on business communication in German.

*Prereq: Three years of college German or the equivalent, or department permission.*

**GERN 447 Business German II 3 hrs**

The idiom and terminology of the German economy and economic geography. Emphasis on business communication in German.

*Prereq: GERN 446 or department permission.*

**GERN 451/452 Readings in German 1/2 hrs**

Special projects in directed reading for majors and minors who have completed the available offerings in German or who, because of most unusual circumstances, are granted department approval to substitute this for the regular courses.

*Prereq: Department permission.*

**GERN 466 German for International Affairs 3 hrs**

The study and functional use of German terminology for international affairs with emphasis on improving cross-cultural communication skills. The principles of German government (with references to Austria and Switzerland) and the implications for Germany's international relations and trade with the United States. *In German.*

*Prereq: GERN 343 and GERN 344.*

**GERN 477/478/479 Special Topics 1/2/3 hrs**

These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.

*Prereq: Department permission.*

**GERN 488/489 Internship 2/3 hrs**

An opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. Credit/no credit.

*Prereq: Department permission.*

**GERN 490 Intensive German in Europe 3 hrs**

An intensive summer course offered in Europe. Instruction at many different levels available. May be counted for equivalent hours on 100 to 400 levels. May be repeated for credit.

**GERN 497/498/499 Independent Study 1/2/3 hrs**

Advanced study on an individual research basis in areas not covered in formal course work.

*Prereq: Department permission.*

### Japanese Courses

**JPNE 121 Beginning Japanese 5 hrs**

Practice in elementary conversation with special attention to reading and writing the two Japanese syllabaries and basic ideographs. Laboratory

attendance required. *Satisfies general education foreign language composition requirement, Area I.*

**JPNE 122 Beginning Japanese 5 hrs**

Instruction includes practice in elementary conversation with special attention to reading and writing the two Japanese syllabaries and basic ideographs. Laboratory attendance required. *Satisfies general education foreign language composition requirement, Area I.*

*Prereq: JPNE 121 or equivalent.*

**JPNE 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**JPNE 211 Intermediate Japanese 5 hrs**

Practice in intermediate Japanese conversation, with heavy emphasis on reading and writing common ideographs in nontechnical text. Laboratory attendance required. *Satisfies general education foreign language composition requirement, Area I.*

*Prereq: JPNE 122 or equivalent.*

**JPNE 212 Intermediate Japanese 5 hrs**

Instruction includes practice in intermediate Japanese conversation, with heavy emphasis on reading and writing common ideographs in nontechnical text. Laboratory attendance required. *Satisfies general education foreign language composition requirement, Area I.*

*Prereq: JPNE 211 or equivalent.*

**JPNE 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**JPNE 344 Japanese Conversation 3 hrs**

Emphasizes acquisition of an active vocabulary for daily life and greater oral facility. Intensive study of casual or familiar levels of speech as well as polite forms and honorifics. *About 80 percent in Japanese.*

*Prereq: JPNE 212 or department permission.*

**JPNE 345 Japanese Composition 3 hrs**

Writing for a variety of purposes and a review of kanji (ideographs) and grammar constitute the core of the course. Frequent written assignments.

*Prereq: JPNE 344 or department permission.*

**JPNE 361 Japanese for International Trade 3 hrs**

Introduction to Japanese business culture and business communication in Japanese. The course provides opportunity for comparative analysis of American and Japanese cultural patterns in business settings. *About 50 percent in Japanese.*

*Prereq: JPNE 345 or department permission.*

**JPNE 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**JPNE 444 Advanced Japanese Conversation 3 hrs**

The course aims to develop advanced conversational fluency. Students are expected to participate actively in group discussion. Instruction includes extensive vocabulary building for discussing a variety of subjects. *In Japanese.*

*Prereq: JPNE 345 or department permission.*

**JPNE 446 Business Japanese I** 3 hrs  
The course aims to increase proficiency in business communication in Japanese and to develop knowledge of Japanese economy, industry and foreign trade. Extensive work on the vocabulary and idiom of Japanese economy and business. *In Japanese.*  
*Prereq: JPNE 361 and JPNE 444, or department permission.*

**JPNE 447 Business Japanese II** 3 hrs  
The course provides an overview of the system of organization, managerial style, and personnel relations of Japanese companies. Study of business communication focuses on business correspondence and translation. *In Japanese.*  
*Prereq: JPNE 446 or department permission.*

**JPNE 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**JPNE 494 Seminar in Japanese Studies** 3 hrs  
Required of students majoring in teaching Japanese language and culture. Extensive study and discussion of issues related to Japanese society and to political and economic systems. Students are required to apply Japanese language skills in research, presentations and papers. *About 50 percent in Japanese.*  
*Prereq: JPNE 361 or department permission.*

### Spanish Courses

**SPNH 121 Beginning Spanish** 5 hrs  
Basic principles of grammar. Practice in elementary conversation, pronunciation, composition and reading. One-half hour per day in the laboratory required. *Satisfies the general education foreign language composition requirement, Area I.*

**SPNH 122 Beginning Spanish** 5 hrs  
Basic principles of grammar. Practice in elementary conversation, pronunciation, composition and reading. One-half hour per day in the laboratory required. *Satisfies the general education foreign language composition requirement, Area I.*  
*Prereq: SPNH 121 or equivalent. Placement exam required.*

**SPNH 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**SPNH 201 Intermediate Spanish** 3 hrs  
A review of Spanish grammar, frequent simple written compositions, and extensive oral work. Meets three times per week and students will spend two half-hour periods per week in the laboratory. *In Spanish. Satisfies the general education foreign language composition requirement, Area I. Does not satisfy the general education literature requirement.*  
*Prereq: SPNH 122 or equivalent. Placement exam required.*

**SPNH 202 Intermediate Spanish** 3 hrs  
A review of Spanish grammar, frequent simple written compositions, and extensive oral work. Meets three times per week and students will spend two half-hour periods per week in the laboratory. *In Spanish. Satisfies the general education foreign language composition requirement, Area I. Does not satisfy the general education literature requirement.*  
*Prereq: SPNH 201 or equivalent.*

**SPNH 221 Intermediate Spanish Reading** 3 hrs  
An introduction to literary criticism as applied to Hispanic literature. Extensive reading of materials in Hispanic literature and culture. *In Spanish. Satisfies Area IV of the general education requirements.*  
*Prereq: SPNH 202 or department permission.*

**SPNH 222 Intermediate Spanish Reading** 3 hrs  
An introduction to literary criticism as applied to Hispanic literature. Extensive reading of materials in Hispanic literature and culture. *In Spanish. Satisfies Area IV of the general education requirements.*  
*Prereq: SPNH 221 or department permission. Placement exam required.*

**SPNH 277/278/279 Special Topics** 1/2/3 hrs  
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.  
*Prereq: Department permission.*

**SPNH 301 The Cultures of Spain** 3 hrs  
A panoramic view of the peoples of Spain, their cultures, environment and way of life. *In Spanish.*  
*Prereq: SPNH 202 and SPNH 222, or department permission.*

**SPNH 302 The Cultures of Spanish America** 3 hrs  
A panoramic view of the cultures, the peoples and the environment of Spanish America. *In Spanish.*  
*Prereq: SPNH 202 and SPNH 222, or department permission.*

**SPNH 341 Survey of Spanish Literature** 3 hrs  
This survey course covers the major authors and literary movements from the beginning of peninsular Spanish literature to the end of the 17th century. *In Spanish. Satisfies the general education literature requirement, Area IV.*  
*Prereq: SPNH 222 or department permission.*

**SPNH 342 Survey of Spanish Literature** 3 hrs  
This survey course covers the major authors and literary movements in peninsular Spanish literature from 1700 to the present. *In Spanish. Satisfies the general education literature requirement, Area IV.*  
*Prereq: SPNH 222 or department permission.*

**SPNH 343 Spanish Grammar and Composition** 3 hrs  
A systematic review of Spanish grammar and practice in composition. Frequent written assignments.  
*Prereq: SPNH 202 and SPNH 222, or department permission.*

**SPNH 344 Spanish Conversation and Composition** 3 hrs  
Improved pronunciation, the acquisition of an active vocabulary for daily life, frequent written compositions, and the development of greater oral facility. Meets three times per week and students spend three half-hour periods in the laboratory each week.  
*Prereq: SPNH 202 and SPNH 222, or department permission.*

**SPNH 351 Survey of Spanish-American Literature** 3 hrs  
This course deals with the major writers of Spanish America from the colonial period through modernism. *In Spanish.*  
*Prereq: SPNH 222 or department permission.*

**SPNH 352 Survey of Spanish-American Literature** 3 hrs  
This course deals with the major writers of Spanish America from postmodernism to the present. *In Spanish.*  
*Prereq: SPNH 222 or department permission.*

**SPNH 361 Spanish for International Trade** 3 hrs  
This course is intended for students who already have a solid intermediate-level command of Spanish and who wish to acquire minimum professional competence in the Spanish language as it is used in the world

of international business. It includes practice in various forms of business communication, both written and oral.

*Prereq: SPNH 343 or department permission.*

**SPNH 377/378/379 Special Topics** 1/2/3 hrs

These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.

*Prereq: Department permission.*

**SPNH 388 Internship** 1 hr

Provides an opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. Credit/no credit.

*Prereq: Department permission.*

**SPNH 443 Advanced Spanish Grammar and Composition** 3 hrs

A review of select points of Spanish grammar and extensive practice in writing Spanish.

*Prereq: SPNH 343 and SPNH 344, or department permission.*

**SPNH 444 Advanced Spanish Conversation and Composition** 3 hrs

Improved pronunciation, greater oral facility, and frequent written compositions. Meets three times per week and students spend three half-hour periods in the laboratory each week. May be repeated for supplementary credit.

*Prereq: SPNH 343 and SPNH 344, or department permission.*

**SPNH 445 Spanish-American Prose** 3 hrs

A study of selected topics in Spanish-American literature. May be repeated for credit if the material of the course is in another area. *In Spanish.*

*Prereq: SPNH 352 or department permission.*

**SPNH 446/447 Business Spanish** 3/3 hrs

Required of students majoring in business Spanish. Practice with Spanish commercial correspondence, translation of Spanish business documents, and reading of foreign periodical publications on economics and international trade. An overview of international economic organizations and trade agreements related to Spanish-speaking countries and a review of existing bibliography on commercial Spanish.

*Prereq: SPNH 361 or department permission.*

**SPNH 448 Modern Drama** 3 hrs

The development of modern Spanish drama and its various types. Works of the principal dramatists of the 19th and 20th centuries. *In Spanish.*

*Prereq: SPNH 342 or department permission.*

**SPNH 449 Romanticism** 3 hrs

A study of the major works of Hispanic Romanticism. *In Spanish.*

*Prereq: SPNH 342 or department permission.*

**SPNH 450 Spanish-American Theatre** 3 hrs

A study of the theatre in Spanish America from its beginning to the present. *In Spanish.*

*Prereq: SPNH 352 or department permission.*

**SPNH 454 Modernism in Spanish America** 3 hrs

A survey of the literary movement known as "modernismo" in the literature of Spanish America. *In Spanish.*

*Prereq: SPNH 352 or department permission.*

**SPNH 455 The Generation of 1898** 3 hrs

A study of the works of the main authors of the generation of 1898, from Unamuno to Ortega y Gasset. *In Spanish.*

*Prereq: SPNH 342 or department permission.*

**SPNH 456 Scientific and Technical Spanish I** 3 hrs

Study of the fundamental Spanish terminology required for scientific and technical contexts, including basic vocabulary for mathematics, geometry and physics. In-depth study of at least one scientific or technical field (e.g., automobile industry, automated processes). Students will explore the vocabulary and resources in their chosen fields.

*Prereq: SPNH 343 or department permission.*

**SPNH 463 Don Quixote** 3 hrs

The universal qualities of both the book and its author, as well as their relation to Spanish life and literature of the period. *In Spanish.*

*Prereq: SPNH 341 or department permission.*

**SPNH 464 Drama of the Golden Age** 3 hrs

The drama of the 16th and 17th centuries. Works of the major authors will be read and discussed. *In Spanish.*

*Prereq: SPNH 341 or department permission.*

**SPNH 465 Modern Novel** 3 hrs

Study of the development of the modern novel in Spain during the 19th and 20th centuries. Representative novels will be read and discussed in Spanish.

*Prereq: SPNH 342 or department permission.*

**SPNH 471 Culture and Literature of the Hispanic Groups in the United States** 3 hrs

A study of the cultures of the major Hispanic groups in the U.S. The study of representative literary works is intended to lead to an increased appreciation of the cultural roots and current life styles of these groups. *In Spanish. A minimum of 24 hours of field experience required.*

**SPNH 482 Language of the Hispanic Groups in the United States** 3 hrs

A survey of present-day social and regional variations in the Spanish spoken in the U.S. and the historical background of these variations. *In Spanish. A minimum of 24 hours of field experience required.*

*Prereq: An introductory course in linguistics or department permission.*

**SPNH 488/489 Internship** 2/3 hrs

Provides an opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. Credit/no credit.

*Prereq: Department permission.*

**SPNH 490 Intensive Spanish** 6 hrs

An intensive summer course offered in Mexico. Instruction on a small-group (four to five students) basis, with many different instructional levels available. Students advance according to individual progress. Students live with Mexican families. May be counted for equivalent hours in Spanish on 100 to 400 levels. May be repeated for credit.

**SPNH 497/498/499 Independent Study** 1/2/3 hrs

Advanced study on an individual research basis in areas not covered in formal course work.

*Prereq: Department permission.*

**General Language and Bilingual-Bicultural Education Courses**

**FLAN 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**FLAN 215 The Cultures of Mexican-Americans and Cubans in the United States****3 hrs**

A study of contemporary life of two of the principal Latino groups in the United States. Since their language and literature reflect a unique socio-cultural 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.

**FLAN 277/278/279 Special Topics****1/2/3 hrs**

These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.

*Prereq: Department permission.*

**FLAN 377/378/379 Special Topics****1/2/3 hrs**

These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.

*Prereq: Department permission.*

**FLAN 387 Cooperative Education in Foreign Language****3 hrs**

Four to six months of full-time employment in a position designed to give practical experience in a field related to the student's foreign language major. The program ordinarily consists of two work experiences (FLAN 387 and FLAN 487) alternating with full-time attendance at the University. Credit/no credit.

*Prereq: Junior standing; admission to the program by application only.*

**FLAN 388 Internship****1 hr**

An opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. Credit/no credit.

*Prereq: Department permission.*

**FLAN 411 Theory and Methods of Modern Language Teaching****3 hrs**

The history, theory and techniques of modern language teaching. Not counted in the language area of the degree requirements, nor toward a major in any modern language. Should be taken during the fall semester prior to student teaching. Not open to students on academic probation.

*Prereq: Junior standing, FRNH 343/SPNH 343/GERN 343 or department permission.*

**FLAN 421 History and Theory of Bilingual Education****3 hrs**

Sociolinguistic and psycholinguistic aspects of bilingualism, language acquisition and cognitive development in the bilingual child, different instructional models for bilingual education programs, and school and community relations. A minimum of 24 hours of field experience required. Not open to students on academic probation.

**FLAN 422 Teaching Hispanic Culture and Language****3 hrs**

The techniques and materials for teaching the language and culture of Hispanic groups within the bilingual classroom. Techniques and materials for teaching other subject-matter areas in Spanish. A minimum of 24 hours of field experience in a bilingual classroom required. Not open to students on academic probation.

**FLAN 477/478/479 Special Topics****1/2/3 hrs**

These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.

*Prereq: Department permission.*

**FLAN 487 Cooperative Education in Foreign Language****3 hrs**

Four to six months of full-time employment in a position designed to give practical experience in a field related to the student's foreign lan-

guage major. The program ordinarily consists of two work experiences (FLAN 387 and FLAN 487) alternating with full-time attendance at the University. Credit/no credit.

*Prereq: FLAN 387; admission to the program by application only.*

**FLAN 488/489 Internship in Language and International****Trade****2/3 hrs**

An opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. Credit/no credit.

*Prereq: Department permission.*

**FLAN 490 Internship in Language and International Trade****3 hrs**

An opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. Credit/no credit.

*Prereq: Department permission.*

**FLAN 497/498/499 Independent Study****1/2/3 hrs**

Advanced study on an individual basis in areas not covered in formal course work.

*Prereq: Department permission.*

**Classical Languages Courses****GREK 121 Beginning Ancient Greek I****5 hrs**

For students with a strong interest in archaic and classical Greek culture. Acquaints students with sufficient ancient Greek grammar, vocabulary and syntax to facilitate the reading of the masterpieces of Greek literature. *Satisfies the general education foreign language composition requirement, Area I.*

**GREK 122 Beginning Ancient Greek II****5 hrs**

For students with a strong interest in archaic and classical Greek culture. Acquaints students with sufficient ancient Greek grammar, vocabulary and syntax to facilitate the reading of the masterpieces of Greek literature. *Satisfies the general education foreign language composition requirement, Area I.*

*Prereq: GREK 121.*

**GREK 177/178/179 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GREK 277/278/279 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GREK 377/378/379 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GREK 477/478/479 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*



**LATN 121 Beginning Latin I** 5 hrs  
A course to bring students to the level of facility necessary to read ancient authors with enjoyment and understanding. *Satisfies the general education foreign language composition requirement, Area I.*

**LATN 122 Beginning Latin II** 5 hrs  
A course to bring students to the level of facility necessary to read ancient authors with enjoyment and understanding. *Satisfies the general education foreign language composition requirement, Area I.*  
*Prereq: LATN 121.*

**LATN 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**LATN 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**LATN 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**LATN 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

### Courses in English for International Students

**ESLN 112 Beginning ESL Writing** 3 hrs  
This course includes grammar manipulation of simple sentences while introducing paragraph organization and form.  
*Prereq: Department permission or placement.*

**ESLN 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ESLN 210 Intermediate ESL Grammar** 3 hrs  
Basic sentence components emphasizing verb tenses and usage. Some work on complex sentence structures.  
*Prereq: Department permission or placement.*

**ESLN 212 Intermediate ESL Writing** 3 hrs  
Expanding paragraph constructions while developing unity, cohesion and transition.  
*Prereq: Department permission or placement.*

**ESLN 214 Intermediate ESL Reading** 3 hrs  
Continued development of techniques to build vocabulary and reading skills. Materials emphasize informational reading.  
*Prereq: Department permission or placement.*

**ESLN 216 Intermediate ESL Speaking and Listening** 3 hrs  
Continued development of conversational skills, both speaking and listening. Delivery of short speeches and the development of listening for details.  
*Prereq: Department permission or placement.*

**ESLN 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ESLN 310 Advanced ESL Grammar** 3 hrs  
The formation and manipulation of clauses in complex sentences and the sequence of verb tenses across clauses. A review of verb tenses and problematic grammar points.  
*Prereq: ESLN 210, department permission or placement.*

**ESLN 312 Advanced ESL Writing** 3 hrs  
Development of knowledge of organization patterns used in writing both paragraphs and compositions. The principal parts of a composition; writing devices used to achieve coherence.  
*Prereq: ESLN 212, department permission or placement.*

**ESLN 314 Advanced ESL Reading** 3 hrs  
Practice in comprehending and analyzing unsimplified texts of greater length and linguistic complexity in a variety of fields.  
*Prereq: ESLN 214, department permission or placement.*

**ESLN 316 Advanced ESL Speaking and Listening** 3 hrs  
Continued development of conversational, speaking and listening skills. Production and comprehension of short discourses on personal and nonpersonal topics.  
*Prereq: ESLN 216, department permission or placement.*

**ESLN 318 Advanced ESL Laboratory** 1 hr  
Individual and/or group lab sessions.  
*Prereq: Department permission or placement.*

**ESLN 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ESLN 412 Academic ESL Writing** 3 hrs  
A review of the components of compositions; practice in composition skills and researching, outlining, formatting and writing a short research paper. *Fulfills area I. of the general education requirements, a course in written composition.*  
*Prereq: ESLN 312, department permission or placement.*

**ESLN 414 Academic ESL Reading** 3 hrs  
Reading in specialized fields at professional levels. Practice in outlining, summarizing, and synthesizing ideas from different sources.  
*Prereq: ESLN 314, department permission or placement.*

**ESLN 416 Academic ESL Speaking and Listening** 3 hrs  
Strategies for and practice in comprehending lectures, taking notes and effectively participating in informal and formal classroom speaking activities.  
*Prereq: ESLN 316, department permission or placement.*

**ESLN 477/478/479 Special Topics** 1/2/3 hrs  
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.  
*Prereq: Department permission.*

### Classics Courses

**CLAS 104 Quest for Power: Famous Figures in History** 3 hrs  
An examination of the lives and times of select leaders from the ancient and modern worlds. Examples of figures to be covered are Pericles, Nero, Napoleon I and Adolf Hitler. Major literary monuments of the periods

will be examined as well. Team taught by a member of the History Department and a classicist. This course satisfies one literature or one history requirement. *Note: See Honors Humanities Courses, page 30.*

**CLAS 106/LITR 106 Rome and America** 6 hrs  
An investigation into problems and pressures comparing the people and culture of ancient Rome and modern America, considering individual hopes and ideals, religious beliefs, and ideas about death, government, morality, love and sex. Team taught by a member of the English Department and a classicist. These courses must be taken concurrently and satisfy two literature requirements. *Note: See Honors Humanities Courses, page 30.*

**CLAS 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**CLAS 181 The Legacy of Greece** 3 hrs  
An introduction to Greek epic, drama, poetry, history and philosophy, illustrating the influence of the Greek tradition on western civilization. The literature is read in English translation. Representative examples of Greek architecture and sculpture also are examined. Team taught by a classicist and/or a member of the English Department. This course satisfies one literature requirement. *Note: See Honors Humanities Courses, page 30.*

**CLAS 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**CLAS 301 Mythology** 3 hrs  
The general field of classical mythology and the psychology underlying it. The poet's and artist's selection and use of the classic myths from early until modern times; an interpretation of mythological allusions in literature.

**CLAS 322 Women and Gender in the Ancient World** 3 hrs  
An investigation of life for women in antiquity, focusing on the sex-gender system of Greek and Roman societies. Literary, inscriptional and other evidence will be studied to disclose the classical roots of western beliefs and attitudes about women.

**CLAS 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**CLAS 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

### Language Courses

**LNGE 134 Etymology** 3 hrs  
Greek and Latin words and roots that are current in English forms are studied in order to enlarge the vocabulary and to produce a more discriminating use of words.

**LNGE 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**LNGE 223 Introduction to Language** 3 hrs  
The basic principles of linguistic structure as they apply to the western European languages taught in the department.

**LNGE 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**LNGE 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**LNGE 425 Second-Language Acquisition** 3 hrs  
Examines 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 will be explored. Focus will be on birth through teen years, with particular attention paid to language used in English-medium elementary and secondary schools.  
*Prereq: LNGE 223.*

**LNGE 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

### TESOL Courses

**TSLN 410 TESOL Methods** 3 hrs  
Various methods and techniques used to teach language components (grammar, vocabulary and pronunciation) and language skills (reading, writing, listening and speaking) are examined with regard to the theories on which they are based. Practice in developing and implementing balanced and effective language lesson plans is provided.  
*Prereq: One year college-level foreign language and an introduction to language course, or department permission.*

**TSLN 420 Materials and Tests for TESOL** 3 hrs  
Review of existing materials and tests used with limited English proficient students in public schools. Practice in adapting and developing materials for varying audiences in the public schools. Practice administering ESL tests used in public schools.  
*Prereq: TSLN 410 or concurrent enrollment, or department permission.*

**TSLN 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

# Geography and Geology

Web site: [www.emich.edu/public/geo/welcome.html](http://www.emich.edu/public/geo/welcome.html)

**Michael C. Kasenow**

**Department Head**

**203 Strong**

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**Professors:** Gabriel Cherem, Eugene Jaworski, Ted Ligibel, Robert Mancell, James McDonald, Andrew Nazzaro, Carl Ojala, C. Nicholas Raphael, Robert Ward

**Associate Professors:** Michael Bradley, Michael Kasenow, Steven LoDuca, Norman Tyler, Yichun Xie

**Assistant Professors:** Allen Cichanski, Christine Mayda

The department'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 in Colorado. To support and encourage computer literacy in the department's multiple disciplines, there is a modest 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, public administration, travel and tourism, and urban and regional planning programs. The department also provides teacher preparation courses to serve College of Education students.

Department faculty regularly participate in the University Honors Program. Department students often contribute original work to the Undergraduate Symposium. The *Geographical Bulletin*, the journal associated with Gamma Theta Upsilon (national professional geography organization), is edited in the department.

Four student groups are associated with Geography and Geology: the GEO Club, Preservation Eastern, the Planning Awareness Club of Eastern (PLACE), and the Travel and Tourism Student Association.

## Degrees:

Bachelor of Science and Bachelor of Arts

## Programs of Study

### Majors:

Earth science  
 Earth science for secondary education  
 Geography  
 Geography for secondary education  
 Geology—general concentration  
 Geology—hydrogeology concentration  
 Geology—professional concentration  
 Travel and tourism  
 Urban and regional planning

### Minors:

Cartography and remote sensing  
 Coastal environments  
 Earth science  
 Earth science for secondary, K-12, and special education—secondary  
 Environmental Analysis  
 Geography  
 Geography for secondary, K-12, and special education—secondary  
 Geology  
 Geology for secondary, K-12, and special education—secondary  
 Historic preservation

Travel and tourism

Urban and regional planning

## Advising coordinators:

Coastal environments: C. Nicholas Raphael

Earth science: Michael Bradley, Carl Ojala, C. Nicholas Raphael

Geography: James R. McDonald, Andrew A. Nazzaro, Christine Mayda

Geology: Michael Bradley, Allen Cichanski, Steven LoDuca

Geology with concentration in hydrogeology: Michael Kasenow

Historic preservation: Ted Ligibel

Urban and regional planning: Norman Tyler

Travel and tourism: Gabriel Cherem, Robert Mancell

Cartography and remote sensing: Eugene Jaworski

Graduate study leads to the master's degree in either geography or historic preservation planning. A non-degree certification program of study (five courses) in historic preservation also is offered. The M.A. and M.S. degrees and certification are described in the graduate catalog.

## Earth Science Major

### ISIS major code: GE01

The earth science major informs about the planet Earth from the multiple perspectives of the atmosphere, the earth's surface, the oceans and the interior structure of the planet. This includes study of weather and climate; the natural processes like wind, water and ice that shape the surface; plate tectonics and associated volcanism and earthquakes; and the impact of the planet's oceans.

### Required courses: ..... 27-30

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) .....	4
#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
GESC 114 National Parks and Monuments .....	2
GESC 309 Plate Tectonics .....	3
GESC 320 The Oceans .....	3
GESC 324 Weather .....	3
<i>One of:</i> .....	3/4
#GEOL 120 The Fossil Record (satisfies general education requirement II.1 or II.3) (3)	
GEOL 161 Historical Geology (4)	
<i>One of:</i> .....	4/2
GEOL 228 Mineralogy (4)	
GEOL 229 Rocks of Michigan (2)	
<i>One of:</i> .....	3/4
GEOL 325 Geomorphology (3)	
GEOL 331 Paleontology (4)	

### Restricted electives: ..... 2-5

Choose two to five hours from the following:

ASTR 204 Astronomical Investigations (3)	
GESC 208 Natural Environmental Hazards (3)	
GESC 227 Topographic Maps (2)	
GESC 250 Introduction to Coastal Processes (3)	
GESC 327 Soil Science (3)	
GESC 424 Climatology (3)	
GESC 425 Severe and Unusual Weather (3)	
#GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) (4)	
GEOL 228 (4) or GEOL 229 (the one not taken above) (2)	
GEOL 325 (3) or GEOL 331 (the one not taken above) (4)	
GEOL 370 Glacial Geology (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/geo/ugrad/major/es.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/geo/ugrad/major/es.html).

**Total: ..... 32 hours**

**#Advising note:** 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.

## Geography Major

**ISIS major code: GE02**

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.

**Required courses: 28**

#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) ..... 4

#GEOG 110 World Regions (satisfies general education requirement III.3) ..... 3

GEOG 235 Economic Geography ..... 3

Techniques courses: ..... 6

*Choose two courses from the following:*

GEOG 300 Location and Site Analysis (3)

GESC 401 Cartography (3)

GESC 303 Field Geography (3)

GESC 305 Aerial Photograph Interpretation (3)

GESC 470 Quantitative Methods in Geography and Geology (3)

Physical course: ..... 3

*Choose one course from the following:*

GESC 320 The Oceans (3)

GESC 324 Weather (3)

GEOG 325 Geomorphology (3)

GESC 327 Soil Science (3)

GEOG 448 Hydrogeology (3)

Systematic courses: ..... 6

*Choose two courses from the following:*

GEOG 310 Energy Awareness (3)

GEOG 332 Urban Geography (3)

GEOG 360 Cultural Geography (3)

GEOG 361 Geography of Population (3)

GEOG 431 Historical Geography of the United States (3)

GEOG 438 Industrial Location and Development (3)

Regional course: ..... 3

*Choose one course from the following:*

GEOG 314 Geography of Russia and Neighboring States (3)

GEOG 318 Geography of Asia (3)

GEOG 319 Geography of Europe (3)

GEOG 320 Geography of the United States and Canada (3)

GEOG 321 Geography of Latin America, GEOG 322 Geography of Africa (3)

GEOG 323 Geography of Australia and Pacific Islands (3)

GEOG 328 Geography of Canada (3)

**Restricted electives: 2**

Choose elective credits in consultation with geography adviser.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/geo/ugrad/major/geog.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/geo/ugrad/major/geog.html).

**Total: 30 hours**

*\*Advising note:* 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.

## Geology Major—General Geology Concentration

**ISIS major code: GE03**

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.

#GEOG 160 Physical Geology (satisfies general education requirement II.1 or II.3) ..... 4  
 GEOL 161 Historical Geology ..... 4  
 GEOL 228 Mineralogy ..... 4  
 GEOL 326 Structural Geology ..... 4  
 GEOL 329 Igneous and Metamorphic Petrology ..... 4  
 GEOL 330 Sedimentology and Stratigraphy ..... 4  
 \*Field Geology ..... 6

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/geo/ugrad/major/geol.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/geo/ugrad/major/geol.html).

**Total: 30 hours**

*\*Students on a bachelor of arts curriculum may substitute GEOL 331 Paleontology and two credit hours of electives for field geology, with the total required for the major to remain at 30 credit hours.*

*\*Advising note:* This course satisfies both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

## Geology Major—Professional Concentration

**ISIS major code: GE0301**

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 electives in science and mathematics are listed below. Additional general education and elective courses totaling 124 credit hours are required to complete a degree.

**Required courses: 57-59**

#GEOG 160 Physical Geology (satisfies general education requirement II.1 or II.3) ..... 4  
 GEOL 161 Historical Geology ..... 4  
 GEOL 228 Mineralogy ..... 4  
 GEOL 326 Structural Geology ..... 4  
 GEOL 329 Igneous and Metamorphic Petrology ..... 4  
 GEOL 330 Sedimentology and Stratigraphy ..... 4  
 GEOL 331 Paleontology ..... 4  
 GEOL 355 Field Geology I ..... 2  
 GEOL 356 Field Geology II ..... 3  
 #CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ... 4  
 CHEM 123 General Chemistry II ..... 3  
 CHEM 124 General Chemistry II Laboratory ..... 1  
 #MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4  
 #MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4  
 PHY 221/PHY 223 Mechanics, Sound, and Heat (satisfies general education requirement II.3) ..... 4/5  
 PHY 222/PHY 224 Electricity and Light ..... 4/5



**Electives:** ..... 9-14

Choose three courses from the following:

- GEOL 325 Geomorphology (3)
- GEOL 370 Glacial Geology (3)
- GEOL 387 Cooperative Education in Geology (3)
- GEOL 428 Optical Mineralogy (4)
- GEOL 430 Petroleum Geology (3)
- GEOL 439 Economic Geology (3)
- GEOL 448 Hydrogeology (3)
- GEOL 470 Quantitative Methods in Geography and Geology (3)
- GEOL 487 Cooperative Education in Geology (3)
- GEOL 488/489/490 Internship (4/5/6)
- GEOL 499 Independent Study (undergraduate research) (3)
- GESC 250 Introduction to Coastal Processes (3)
- GESC 327 Soil Science (3)
- GESC 476 Introduction to Geographic Information Systems (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/profgeol.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/profgeol.html).

**Total:** ..... **66 hours**

*#Advising note:* 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.

### Geology Major—Hydrogeology Concentration

**ISIS major code: GE0302**

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.

**Required courses:** ..... **40**

- #GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) ..... 4
- GEOL 161 Historical Geology ..... 4
- GEOL 200 Introduction to Hydrology ..... 3
- GEOL 228 Mineralogy ..... 4
- GEOL 325 Geomorphology ..... 3
- GEOL 326 Structural Geology ..... 4
- GEOL 329 Igneous and Metamorphic Petrology ..... 4
- GEOL 330 Sedimentology and Stratigraphy ..... 4
- GEOL 355 Field Geology I ..... 2
- GEOL 356 Field Geology II ..... 3
- GEOL 448 Hydrogeology ..... 3
- \*Field Hydrogeology ..... 2

*\*The hydrogeology field course may be selected from a number of universities with approval from a geology adviser.*

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/hydro.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/hydro.html).

**Total:** ..... **40 hours**

*#Advising note:* 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.

### Travel and Tourism Major

**ISIS major code: GE05**

The travel and tourism major responds to continuing needs for strong liberal arts programs with directed career opportunities. Careful attention is given to course offerings that provide graduates with distinct possibilities for enhancing the travel and tourism profession. Students who successfully complete the curriculum will have: a) increased awareness of the world, particularly in those regions where travel and tourism are commonly associated; b) increased understanding of business, especially from a marketing perspective; and c) increased written and oral skills in English or a foreign language.

The travel and tourism major leading to either a bachelor of arts or bachelor of science degree consists of: 1) an equal number of required credit hours (21 each) in geography and business courses; 2) electives chosen from a selection of courses from the Colleges of Arts and Sciences and Business; and 3) a choice from one of two communications skills options—either a general concentration with courses emphasizing writing and speaking skills, or a foreign language and area studies concentration.

**Required courses:** ..... **42**

- #GEOG 110 World Regions (satisfies general education requirement III.3) ..... 3
- GEOG 112 Introduction to Travel and Tourism ..... 3
- GEOG 212 Geography of Travel and Tourism ..... 3
- GEOG 312 Travel Business Applications ..... 3
- GEOG 320 Geography of the United States and Canada ..... 3
- GEOG 441 Transportation Geography and Planning ..... 3
- GEOG 445 Cultural Tourism Resources ..... 3
- ACC 240 Principles of Accounting I ..... 3
- MGMT 386 Organizational Behavior and Theory ..... 3
- MGMT 202 Business Communication ..... 3
- MKTG 261 Contemporary Selling ..... 3
- MKTG 360 Principles of Marketing ..... 3
- MKTG 365 Consumer Behavior ..... 3
- MKTG 369 Advertising ..... 3

**Elective courses:** ..... **15**

- Choose 15 credits from the following (not more than three courses may be chosen from the College of Business):
- #ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) (3)
  - #ANTH 233 Peoples and Cultures of Mexico (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
  - GEOG 321 Geography of Latin America (3)
  - #ANTH 236 Peoples and Cultures of Africa (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
  - GEOG 322 Geography of Africa (3)
  - ANTH 248 Peoples and Cultures of the Pacific (3)
  - GEOG 323 Geography of Australia and Pacific Islands
  - GEOG 113 Foundations of Guest Service (3)
  - GEOG 115 Observing the Human Landscape (2)
  - GEOG 313 Geography of Michigan (2)
  - GEOG 315 Travel and Tourism: The European Scene (3)
  - GEOG 318 Geography of Asia (3)
  - GEOG 319 Geography of Europe (3)
  - GEOG 333 Settlement Geography (3)
  - GEOG 344 Recreation Geography (3)
  - GEOG 345 Geography of Resorts (3)
  - GEOG 360 Cultural Geography (3)
  - GEOG 387 and/or GEOG 487 Cooperative Education in Geography (3)

- GPLN 435 History of Urban Form and Function (3)
- GEOG 436 Tourism and Socioeconomic Development (3)
- GEOG 446 Heritage Interpretation and Tourism (3)
- GEOG 478 Special Topics (2)
- GEOG 488 Internship (4)
- GESC 114 National Parks and Monuments (2)
- FA 429 History of American Architecture (3)
- MGMT 402 Business Report Writing (3)
- LAW 293 Legal Environment of Business (3)
- LAW 393 Law of Business Enterprises (3)
- MKTG 368 Marketing Strategy (3)
- MKTG 460 International Marketing (3)
- MKTG 473 Marketing and Product Innovation (3)
- MKTG 474 Promotional Strategy (3)

**Concentrations:** ..... 18  
 Choose either Option A: General or Option B: Foreign language and area studies

*Option A: General (ISIS major code: GE0501)*

*Required*

- JRNL 215 Journalism ..... 3
- #CTAC 374 Intercultural Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) ..... 3

*Choose two of the following:* ..... 6

- JRNL 306 Feature Writing (3)
- JRNL 312 Introduction to Public Relations (3)
- #ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3) (3)

*Choose two of the following:* ..... 6

- #CTAC 224 Public Speaking (satisfies general education requirement I.3) (3)
- #CTAC 227 Interpersonal Communication (satisfies general education requirement I.3) (3)
- CTAC 357 Interviewing as Communication (3)

*Option B: Foreign language and area studies (ISIS major code: GE0502)*

Before choosing Option B, students must have completed FRNH/GERN/JPNE/SPNH 121, 122, 221, 222; and 233, 234 (satisfies general education requirement I.3) or equivalencies approved by the Foreign Languages and Bilingual Studies Department.

- FRNH/GERN/JPNE/SPNH 343 and 344 Composition and Conversation ..... 6

*One of:* ..... 6

- GEOG 316/HIST 316 History and Geography of Modern Europe (6)
- GEOG 317/HIST 317 History and Geography of Spanish America (6)

*One of:* ..... 6

- #FRNH/#GERN/#SPNH 341 and 342 Survey of Literature (satisfies general education requirement IV.1 or IV.2) (6)
- FRNH/GERN/JPNE/SPNH 361 Language for International Trade and FRNH/GERN/JPNE/SPNH 446 Business French, Spanish, and German (6)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/trav.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/trav.html).

**Total:** ..... 75 hours

*#Advising note:* 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.

## Urban and Regional Planning Major

**ISIS major code: GE04**

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.

**Required courses:** ..... 22

- GPLN 215 Introduction to Urban and Regional Planning .... 3
- GPLN 306 Comprehensive Planning and Zoning ..... 3
- GESC 401 Cartography ..... 3
- GPLN 410 Site Planning Studio ..... 4
- GPLN 435 History of Urban Form and Function ..... 3
- GESC 476 Introduction to Geographic Information Systems ..... 3
- GESC 495/GPLN 495 Environmental Assessment and Planning ..... 3

**Restricted electives:** ..... 14\*

Choose 14 credits from the following in consultation with the advising coordinator:

- DS 265 Business Statistics I
- PLSC 270 Public Administration
- GEOG 300 Location and Site Analysis, GEOG 332 Urban Geography, GPLN 407 Housing and Residential Development, GEOG 441 Transportation Geography and Planning
- GESC 303 Field Geography, GESC 305 Aerial Photograph Interpretation, GESC 475 Computer Mapping, GESC 479 Special Topics: Planning Law, GESC 387/GESC 487 Cooperative Education in Earth Science, GESC 488/489/490 Internship
- GHPR 335 Historic Preservation

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/urp.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/urp.html).

**Total:** ..... 36 hours

## Earth Science Major Secondary Teacher Certification

**ISIS major code: GE31**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in earth science/geology, certification code "DH." The certification test covering this field is #20, "Geology/Earth Science." The program includes a structured general science minor. This program of studies meets all requirements of the National Science Teachers Association. The certification test covering this field is #16, "General Science." The student following this program is also qualified for recommendation for endorsement in science, certification code "DX."

**Teaching major/minor:** ..... 56 hours

- #ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) ..... 4
- #BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) ..... 4
- #CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ... 4

#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
GESC 114 National Parks and Monuments .....	2
GESC 309 Plate Tectonics .....	3
GESC 320 The Oceans .....	3
GESC 324 Weather .....	3
MATH 105 College Algebra .....	3
MATH 107 Plane Trigonometry .....	2
#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) .....	4
<i>One of:</i>	
GEOL 228 Mineralogy (4)	
GEOL 229 Rocks of Michigan (2)	
<i>One of:</i>	
#GEOL 120 The Fossil Record (satisfies general education requirement II.1 or II.3) (3)	
GEOL 161 Historical Geology (4)	
<i>One of:</i>	
GEOL 325 Geomorphology (3)	
GEOL 331 Paleontology (4)	
Seven hours of approved electives in biology, chemistry, mathematics or physics .....	7
Enough additional hours from the following group to complete 56 hours in teaching-major requirements	
ASTR 204 Astronomical Investigations (1)	
GESC 208 Natural Environmental Hazards (3)	
GESC 227 Topographic Maps (2)	
GESC 250 Introduction to Coastal Processes (3)	
GESC 327 Soil Science (3)	
GESC 424 Climatology (3)	
GESC 425 Severe and Unusual Weather (3)	
#GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) (4)	
GEOL 228 or GEOL 229 (the one not taken above) (2 or 4)	
GEOL 331 or GEOL 325 (the one not taken above) (3 or 4)	
GEOL 370 Glacial Geology (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/es\\_ts.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/es_ts.html).

*#Advising note:* 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.

## Geography Major

### Secondary Teacher Certification

**ISIS major code: GE32**

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" and, depending on the minor selected, endorsement in economics ("CA"), history ("CC"), political science ("CD"), psychology ("CE"), sociology ("CF"), or social studies ("RX"). The certification test covering this field is #08, "Geography."

**Teaching major: .....** 30 hours

#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
#GEOG 110 World Regions (satisfies general education requirement III.3) .....	3
GEOG 235 Economic Geography .....	3

<i>Two of:</i> .....	6
GEOG 300 Location and Site Analysis (3)	
GESC 401 Cartography (3)	
GESC 303 Field Geography (3)	
GESC 305 Aerial Photograph Interpretation (3)	
GESC 470 Quantitative Methods in Geography and Geology (3)	
<i>One of:</i> .....	3
GESC 320 The Oceans (3)	
GESC 324 Weather (3)	
GEOL 325 Geomorphology (3)	
GESC 327 Soil Science (3)	
GEOL 448 Hydrogeology (3)	
<i>Two of:</i> .....	6
GEOG 310 Energy Awareness (3)	
GEOG 332 Urban Geography (3)	
GEOG 360 Cultural Geography (3)	
GEOG 361 Geography of Population (3)	
GEOG 431 Historical Geography of the United States (3)	
GEOG 438 Industrial Location and Development (3)	
<i>One of:</i> .....	3
GEOG 314 Geography of Russia and Neighboring States (3)	
GEOG 318 Geography of Asia (3)	
GEOG 319 Geography of Europe (3)	
GEOG 320 Geography of the United States and Canada (3)	
GEOG 321 Geography of Latin America (3)	
GEOG 322 Geography of Africa (3)	
GEOG 323 Geography of Australia and Pacific Islands (3)	
GEOG 328 Geography of Canada (2)	
Two hours of electives chosen in consultation with an adviser .....	2

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/geog\\_ts.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/geo/ugrad/major/geog_ts.html).

*#Advising note:* 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.

## Cartography and Remote Sensing Minor

**ISIS minor code: GE05**

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

- GESC 305 Aerial Photograph Interpretation ..... 3
- GESC 401 Cartography ..... 3
- GESC 402 Advanced Cartography ..... 3
- GESC 475 Computer Mapping ..... 3
- GESC 485 Introduction to Remote Sensing ..... 3

**Restricted electives:** ..... 5

- Choose five credits from the following:
- GESC 227 Topographic Maps (3)
  - GEOL 355 Field Geology I (2)
  - GESC 387/GESC 487 Cooperative Education in Earth Science (3)
  - GESC 488/489/490 Internship (4/5/6)
  - MATH 105 College Algebra (3)
  - MATH 107 Plane Trigonometry (2)
  - #FA 165 Graphic Design for Non-majors (satisfies general education requirement IV.4) (3)
  - INDT 121 Graphic Communication (3)
  - CNST 206 Surveying (3)
  - CADM 231 Computer Graphics Programming (3)
  - One of:* (satisfies general education requirement I.5)
    - #IS 215 End-User Computing (3)
    - #COSC 137 Introduction to FORTRAN Programming (3)
  - IS 417 Systems Analysis and Design (3)

**Total:** ..... 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Coastal Environments Minor

**ISIS minor code: GE06**

**Required courses:** ..... 16

- One of:* (satisfies general education requirement II.1 or II.3) ..... 4
- #GESC 108 Earth Science (4)
  - #GEOL 160 Physical Geology (4)
  - GESC 250 Introduction to Coastal Processes ..... 3
  - GESC 320 The Oceans ..... 3
  - GESC 350 Biogeography ..... 3
  - GESC 450 Lake and Coastal Management ..... 3

**Restricted electives:** ..... 6

- Choose six credits from the following:
- GPLN 215 Introduction to Urban and Regional Planning (3)
  - GESC 208 Natural Environmental Hazards (3)
  - GESC 305 Aerial Photograph Interpretation (3)
  - GEOL 325 Geomorphology (3)
  - GEOL 330 Sedimentology and Stratigraphy (3)
  - GESC 495/GPLN 495 Environmental Assessment and Planning (3)
- (Students, in consultation with the minor adviser, may choose other electives not listed above.)

**Total:** ..... 22 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Environmental Analysis Minor

**ISIS minor code: GE08**

**Required courses:** ..... 24

- GPLN 215 Introduction to Urban and Regional Planning .... 3
- GESC 305 Aerial Photograph Interpretation ..... 3
- GESC 470 Quantitative Methods in Geography and Geology ..... 3
- GESC 475 Computer Mapping ..... 3
- GESC 495/GPLN 495 Environmental Assessment and Planning ..... 3
- GEOL 459 Aquifer Analysis ..... 3
- GEOL 460 Contaminant Hydrology ..... 3
- One of:* ..... 3
  - GESC 250 Introduction to Coastal Processes (3)
  - GESC 485 Introduction to Remote Sensing (3)

**Total:** ..... 24 hours

### Earth Science Minor

**ISIS minor code: GE01**

**Required courses:** ..... 18

- #GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) ..... 4
- GESC 320 The Oceans ..... 3
- GESC 324 Weather ..... 3
- GEOL 229 Rocks of Michigan ..... 2
- #ASTR 203 Exploration of the Universe (satisfies general education requirement II.3) ..... 3

**Restricted electives:** ..... 3

- Choose one course from the following:
- GEOL 161 Historical Geology (3)
  - GEOL 228 Mineralogy (3)
  - GEOL 325 Geomorphology (3)
  - GEOL 331 Paleontology (3)
  - GEOL 370 Glacial Geology (3)
- (Students, in consultation with the minor adviser, may choose other electives not listed above.)

**Total:** ..... 21 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Geography Minor

**ISIS minor code: GE02**

**Required courses:** ..... 7

- #GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) ..... 4
- #GEOG 110 World Regions (satisfies general education requirement III.3) ..... 3

**Restricted electives:** ..... 13

Choose 13 credits in consultation with a geography adviser.

**Total:** ..... 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.



## Geology Minor

ISIS minor code: GE03

<b>Required courses:</b> .....	<b>20</b>
#GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) .....	4
GEOL 161 Historical Geology .....	4
GEOL 228 Mineralogy .....	4
GEOL 326 Structural Geology .....	4
GEOL 329 Igneous and Metamorphic Petrology .....	4
<b>Restricted electives:</b> .....	<b>1</b>
Choose one credit in consultation with a geology adviser.	
<b>Total:</b> .....	<b>21 hours</b>

*#Advising note:* This course satisfies both general education requirements and requirements of the minor. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

## Historic Preservation Minor

ISIS minor code: GE07

<b>Required courses:</b> .....	<b>20</b>
GEOG 115 Observing the Human Landscape .....	2
GEOG 332 Urban Geography .....	3
GEOG 333 Settlement Geography .....	3
GHPR 335 Historic Preservation .....	3
*#HIST 123 The United States to 1877 (satisfies general education requirement III.2) .....	3
*#HIST 124 The United States, 1877 to the Present (satisfies general education requirement) .....	3
FA 429 History of American Architecture .....	3

*\*American history majors will substitute electives for HIST 123, HIST 124*

<b>Restricted electives:</b> .....	<b>4-6</b>
Choose two courses from the following:	
#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3), ANTH 150 Introductory Archeology	
ECON 338 Land Economics	
GPLN 215 Introduction to Urban and Regional Planning, GEOG 235 Economic Geography, GEOG 300 Location and Site Analysis, GEOG 313 Geography of Michigan, GEOG 344 Recreation Geography, GEOG 345 Geography of Resorts, GEOG 360 Cultural Geography, GEOG 423 Principles of City and Regional Planning, GESC 401 Cartography	
IDE 311 History of Interiors: Ancient-1800, IDE 321 History of Interiors: 1800-Present	
#HIST 305 Indians of the United States (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), HIST 313 Michigan History, HIST 362 United States Urban History	
TEDU 105 History of Industrial Technology	
CNST 201 Construction Systems, CNST 228 Construction Drawing	
PSY 350 Environmental Psychology	
SOCL 306 The Urban Community	
(Students, in consultation with the program advisers, may choose other electives not listed above.)	
<b>Total:</b> .....	<b>24-26 hours</b>

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. In order to avoid taking excess hours, stu-

dents are advised to take these courses, or approved substitutes from another institution, as part of the general education requirements.

## Travel and Tourism Minor

ISIS minor code: GE09

<b>Required courses:</b> .....	<b>18</b>
#GEOG 110 World Regions (satisfies general education requirement III.3) .....	3
GEOG 112 Introduction to Travel and Tourism .....	3
GEOG 113 Foundations of Guest Service .....	3
GEOG 212 Geography of Travel and Tourism .....	3
GEOG 312 Travel Business Applications .....	3
GEOG 445 Cultural Tourism Resources .....	3

<b>One course from the following:</b> .....	<b>2-3</b>
GEOG 315 Travel and Tourism: The European Scene, GEOG 345 Geography of Resorts, GEOG 436 Tourism and Socioeconomic Development, GEOG 446 Heritage Interpretation and Tourism	

**Total:** ..... **20-21 hours**

*#Advising note:* This course satisfies both general education requirements and requirements of the minor. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

## Urban and Regional Planning Minor

ISIS minor code: GE04

<b>Required courses:</b> .....	<b>13</b>
GPLN 215 Introduction to Urban and Regional Planning ....	3
GPLN 306 Comprehensive Planning and Zoning .....	3
GPLN 410 Site Planning Studio .....	4
GPLN 435 History of Urban Form and Function .....	3

<b>Restricted electives:</b> .....	<b>7</b>
Choose at least seven credits from the following in consultation with the advising coordinator:	
DS 265 Business Statistics I	
PLSC 270 Public Administration	
GEOG 300 Location and Site Analysis, GEOG 332 Urban Geography, GPLN 407 Housing and Residential Development, GEOG 441 Transportation Geography and Planning	
GESC 303 Field Geography, GESC 305 Aerial Photograph Interpretation, GESC 401 Cartography, GESC 475 Computer Mapping, GESC 476 Introduction to Geographic Information Systems, GESC 479 Special Topics: Planning Law, GESC 387/GESC 487 Cooperative Education in Earth Science, GESC 488/489/490 Internship, GESC 495/GPLN 495 Environmental Assessment and Planning	
GHPR 335 Historic Preservation	

**Total:** ..... **20 hours**

## Earth Science Minor

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

ISIS minor code: GE31

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 certification test covering this field is #20, "Geology/Earth Science."

#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
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GEOL 229 Rocks of Michigan .....	2
GESC 309 Plate Tectonics .....	3
GESC 320 The Oceans .....	3
GESC 324 Weather .....	3
#ASTR 203 Exploration of the Universe (satisfies general education requirement II.3) .....	3

One of:

- GEOL 161 Historical Geology (4) (Prereq: #GEOL 160 (satisfies general education requirement II.1 or II.3) or permission)
- GEOL 228 Mineralogy (4) (Prereq: CHEM 121)
- GEOL 325 Geomorphology (3)
- GEOL 331 Paleontology (4) (Prereq: GEOL 161 or BIOL 105 or permission)
- GEOL 370 Glacial Geology (3) (Prereq: GEOL 161, 330 or permission)
- Others, chosen in consultation with advising coordinator

**Total:** ..... 21 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Geography Minor

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

ISIS minor code: GE32

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in geography, certification code "CB." The certification test covering this field is #08, "Geography."

#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
#GEOG 110 World Regions (satisfies general education requirement III.3) .....	3
13 hours chosen in consultation with the advising coordinator to include five hours from:	
GEOG 313 Geography of Michigan (2)	
GEOG 314 Geography of Russia and Neighboring States (3)	
GEOG 318 Geography of Asia (3)	
GEOG 319 Geography of Europe (3)	
GEOG 320 Geography of the United States and Canada (3)	
GEOG 321 Geography of Latin America (3)	
GEOG 322 Geography of Africa (3)	
GEOG 328 Geography of Canada (2)	

**Total:** ..... 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Geology Minor

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

ISIS minor code: GE33

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 certification test covering this field is #20, "Geology/Earth Science."

#GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) .....	4
GEOL 161 Historical Geology .....	4
GEOL 228 Mineralogy .....	4
GEOL 326 Structural Geology .....	4
GEOL 329 Igneous and Metamorphic Petrology .....	4

**Total:** ..... 20 hours

*#Advising note:* This course satisfies both general education requirements and requirements of the minor. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

### Geography Courses in Social Science

**GEOG 100 Future Worlds** 3 hrs

Introduces the student to reasons for studying the future from a geographical perspective, methods used in futuristics, the state of future shock today, the consequences of a shrinking world, and growing interdependence. Possible worlds that may exist beyond the year 2000.

**GEOG 107 Introduction to Geography** 3 hrs

A survey of the major concepts and subfields in modern geography. Physical, cultural, economic, political and social geography are among the major areas explored.

**GEOG 110 World Regions** 3 hrs

Geographic evaluation of the human imprint on the world, focusing on how peoples of various societies have approached the problems of living in their natural environments and with each other. A requirement for both the major and minor in geography.

**GEOG 111 Regions and Resources** 3 hrs

A comparative analysis of the economic resources of major regions of the world. The relationships among countries, corporations and multiple levels of technology are examined.

*Prereq: GEOG 110.*

**GEOG 112 Introduction to Travel and Tourism** 3 hrs

An introduction to the travel and tourism industry, including traditional and emerging careers; the ethical, behavioral and logistical aspects of the travel experience; traveler needs and motivations; futuristic travel directions; and travel-related organizations.

**GEOG 113 Foundations of Guest Service** 3 hrs

Analysis of guest-host service concepts and interactions in the travel and tourism industry, emphasizing the requisite attitudes and role of the professional host. The course will improve student motivation and skills toward providing positive guest experiences.

*Prereq: GEOG 112 or department permission.*

**GEOG 115 Observing the Human Landscape** 2 hrs

A geography course for students of any curriculum designed to enlighten travel experiences by developing observational awareness and perceptual appreciation of human landscapes and by enhancing sensitivity to the personality of places.

**GEOG 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GEOG 212 Geography of Travel and Tourism** 3 hrs

A review of the philosophy, historical development and geographical distribution of travel and tourism. The economic, social and environmental impacts of these activities; case studies illustrating their significance from all regions of the world.

*Prereq: GEOG 110 or GEOG 112 or department permission. (May be taken concurrently.)*

- GEOG 235 Economic Geography** 3 hrs  
Systematic treatment of economic activities in select world locations. Areal factors included in the evaluation, production and distribution of goods and services.
- GEOG 240 Geographic Perspectives on Third World Development** 3 hrs  
A course designed to study the geographic nature of critical development issues. Explores both positive and negative consequences of world interdependence and the global economy.  
*Prereq: GEOG 110 or department permission.*
- GEOG 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- GEOG 300 Location and Site Analysis** 3 hrs  
Practical and theoretical application of models that explain the location of human activities on earth.  
*Prereq: GEOG 235 recommended.*
- GEOG 310 Energy Awareness** 3 hrs  
A study of production, transportation, and consumption of energy, including analysis of historic, modern and future energy sources and the environmental effects of their development. GEOG 110 or GESC 108 recommended.
- GEOG 312 Travel Business Applications** 2 hrs  
A survey of the operational procedures common to travel business ventures. Students will learn information-gathering techniques, the use of reference materials, the design of itineraries, reservations, and ticketing procedures, sales techniques, presentation and proposal preparation, and the emerging technologies available to travel planners.  
*Prereq: GEOG 110 and GEOG 112.*
- GEOG 313 Geography of Michigan** 2 hrs  
Detailed analysis of the natural setting, population and settlement characteristics, industry, recreation and agriculture in the state.  
*Prereq: GEOG 110 or GESC 108.*
- GEOG 314 Geography of Russia and Neighboring States** 3 hrs  
A systematic and regional study of physical, cultural and economic factors in Russia and other states of the former Soviet Union. Distribution of natural resources, population and ethnic questions, environmental problems, and political evolution will be emphasized.  
*Prereq: GEOG 110 or GESC 108.*
- GEOG 315 Travel and Tourism: The European Scene** 3 hrs  
Consideration of Europe as the most significant continent for modern tourism. Emphasis is on the natural, cultural, and historical factors that form the foundation of this industry; and on the major economic, social and environmental impacts that can be attributed to tourism.  
*Prereq: GEOG 112 and GEOG 212.*
- GEOG 316 History and Geography of Modern Europe** 3 hrs  
An interdisciplinary geographical-historical study of modern Europe with the geographical component emphasizing information of an urban, demographic, occupational and environmental nature and the historical component stressing major political, social and cultural developments. Must be taken concurrently with HIST 316.  
*Prereq: GEOG 110 and one of HIST 101/HIST 102/HIST 103.*
- GEOG 317 History and Geography of Spanish America** 3 hrs  
An interdisciplinary presentation of the history and geography of Spanish America with emphasis on political, cultural and socioeconomic forces from the conquest to the present. Similarities and differences within and among nations are stressed as are the special relationships that exist between the nations and the United States. Must be taken concurrently with HIST 317.  
*Prereq: GEOG 110 and one of HIST 101/HIST 102/HIST 103.*
- GEOG 318 Geography of Asia** 3 hrs  
A regional treatment of natural setting, distribution of the people, important occupations and problems of future development in each of several regions.  
*Prereq: GEOG 110 or GESC 108.*
- GEOG 319 Geography of Europe** 3 hrs  
Systematic treatment of the natural setting, cultural patterns, economic activities and developmental problems of the continent; selected significant regions analyzed in detail.  
*Prereq: GEOG 110 or GESC 108.*
- GEOG 320 Geography of the United States and Canada** 3 hrs  
A regional treatment of natural setting, distribution of the people, important occupations and problems of future development in each of several regions.  
*Prereq: GEOG 110 or GESC 108.*
- GEOG 321 Geography of Latin America** 3 hrs  
A regional treatment of natural setting, distribution of the people, important occupations and problems of future development in each of several regions.  
*Prereq: GEOG 110 or GESC 108.*
- GEOG 322 Geography of Africa** 3 hrs  
A human ecological treatment of the African continent, involving resource identification and use as well as the varied nature of evolving human landscapes.  
*Prereq: GEOG 110 or GESC 108.*
- GEOG 323 Geography of Australia and Pacific Islands** 3 hrs  
The natural setting, distribution of the people, important occupations and problems of future development in each of several regions.  
*Prereq: GEOG 110 or GESC 108.*
- GEOG 326 History and Geography of Modern Asia** 3 hrs  
An interdisciplinary geographical-historical study of modern Asia. The geography component emphasizes urban, demographic, occupational, and environmental trends and developments; the history component stresses major political and social developments and international relations. *A requirement for majors in the Japanese program in language and international trade. Must be taken concurrently with HIST 326.*  
*Prereq: GEOG 110 and either HIST 103 or HIST 106.*
- GEOG 328 Geography of Canada** 2 hrs  
A detailed regional treatment of natural setting, distribution of the people, important occupations and problems of future development in each part of Canada.  
*Prereq: GEOG 110 or GESC 108.*
- GEOG 332 Urban Geography** 3 hrs  
A study of geographic principles related to distribution, function, structure and regional setting of urban centers.  
*Prereq: GEOG 110.*
- GEOG 333 Settlement Geography** 3 hrs  
Cultural, functional and ecological factors underlying human settlement patterns.  
*Prereq: GEOG 110 or GESC 108 or GEOG 115.*
- GEOG 344 Recreation Geography** 3 hrs  
A study of the relationship between human recreation activities and the environment. The environment as a recreation resource; recreation travel patterns; types of recreational facilities; impact of leisure activities upon the environment; recreational surveys and planning. Recommended: GESC 114 or GPLN 215 or GEOG 115 or GEOG 360 or BIOL 224.
- GEOG 345 Geography of Resorts** 2 hrs  
Historical and systematic study of resorting and the resort as a functionally specialized settlement type; major resort areas of the world.  
*Prereq: GEOG 110 and GEOG 212 or department permission.*

**GEOG 348 Teaching Social Studies in Elementary Schools** 3 hrs  
 Survey of the social studies and evaluation of methods commonly used in the teaching of social studies in the elementary grades, with special emphasis on inquiry. Types of activities most effective in the presentation of materials and the use of visual aids are featured. A study of maps and globes, controversial issues, social values, environmental education, consumer education, global education and ethnic groups is included. Not open to students on academic probation.  
*Prereq: One course in geography.*

**GEOG 360 Cultural Geography** 3 hrs  
 Human landscape patterns; emphasis upon the processes concerned with their origins, locations and persistence.  
*Prereq: GEOG 110 or department permission.*

**GEOG 361 Geography of Population** 3 hrs  
 An analytical study of population characteristics and growth, world patterns of fertility, mortality and migration. Major attention is given to human population problems, including ecology, resources depletion and impacts of urbanization.  
*Prereq: GEOG 110 or department permission.*

**GEOG 377/378/379 Special Topics** 1/2/3 hrs  
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**GEOG 387 Cooperative Education in Geography** 3 hrs  
 Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in geography. The program consists of two work experiences (GEOG 387/GEOG 487) alternating with full-time University attendance. A written report is required at the end of each employment period. Graded on a credit/no credit basis.  
*Prereq: Completion of sophomore year, geography major. Admittance by application only.*

**GEOG 423 Principles of City and Regional Planning** 3 hrs  
 Theory and practice of planning in the urban and regional contexts, with emphasis on the United States. Planning process at local, state and regional levels.  
*Prereq: GEOG 332 or department permission.*

**GEOG 431 Historical Geography of the United States** 3 hrs  
 The sequence of human occupancy of the United States from pre-European times to the present. Temporal and spatial evolution of cultural landscapes.  
*Prereq: GEOG 320 or department permission.*

**GEOG 433 Political Geography of the United States** 3 hrs  
 A study of the variety and diversity of geographic forms of political behavior, organization and structure in the United States.  
*Prereq: GEOG 110 or department permission.*

**GEOG 436 Tourism and Socioeconomic Development** 3 hrs  
 For students majoring in travel and tourism. Socioeconomic impacts of tourism, national and international development strategies.  
*Prereq: GEOG 110 and GEOG 112.*

**GEOG 438 Industrial Location and Development** 3 hrs  
 Basic principles of industrial development including industrial location theory, industrial site strategy, corporate facilities planning and community industrial development programming. Strengths and weaknesses of Michigan for economic expansion. Case studies and practical applications.  
*Prereq: GEOG 300 or department permission.*

**GEOG 440 World Food Systems** 3 hrs  
 An analysis of world agricultural technologies and patterns. The interrelationships among ecosystems, economic development and political decision making in a variety of world settings.  
*Prereq: GEOG 235 or department permission.*

**GEOG 441 Transportation Geography and Planning** 3 hrs  
 Explores the evolution of transportation in American society, with special attention paid to the impact of railroads, the automobile and the airline industry. Topics include an introduction to techniques for modeling transportation system demand.  
*Prereq: GEOG 235, GEOG 212, or GPLN 215.*

**GEOG 445 Cultural Tourism Resources** 3 hrs  
 Survey of the relationships between cultural heritage resources and tourism. The tourism potentials of cultural centers and museums, archeological sites, folk crafts and foodways, regional cultural mannerisms, ethnic landscapes, architecturally significant buildings, historic cities and towns, and other types of historic landscapes will be covered.  
*Prereq: GEOG 115 or 212 or GEOG 360 or GHPR 335.*

**GEOG 446 Heritage Interpretation and Tourism** 3 hrs  
 Evolution of the private sector tour-guiding and the public sector heritage interpretation concepts. Practice in the application of interpretive technique to cultural and natural tourism resources. Strategies for the integrative use of interpretive methods, including tours, demonstrations, talks, person-to-person experiences, publications, exhibits, signage and audio-visuals.  
*Prereq: GEOG 445 or department permission.*

**GEOG 477/478/479 Special Topics** 1/2/3 hrs  
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**GEOG 487 Cooperative Education in Geography** 3 hrs  
 Four to six months of full-time employment at a firm or agency chosen for imparting a practical educational experience in geography. The program consists of two work experiences (GEOG 387/GEOG 487) alternating with full-time attendance at the University. A written report is required at the end of each employment period. Graded on a credit/no credit basis.  
*Prereq: GEOG 387. Completion of junior year, geography major. Admittance by application only.*

**GEOG 488/489/490 Internship** 4/5/6 hrs  
 Supervised internship in some aspect of geography that is of mutual interest to the qualified student and the place the student will work. Designed to integrate academic training with practical application. May be taken only once for credit.  
*Prereq: Department permission and placement.*

**GEOG 497/498/499 Independent Study** 1/2/3 hrs  
 Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.  
*Prereq: Department permission.*

## Geology Courses

**GEOL 120 The Fossil Record** 3 hrs  
 The origin, development and succession of life on earth. Systematic study of the evolution of life through time. An introduction to the record of life on earth for the nonscience major.

**GEOL 160 Physical Geology** 4 hrs  
 Geological concepts, processes, materials and surface features of the physical earth; internal features such as heat and volcanism, earthquakes and deformation, and plate tectonics; and external processes that have shaped the landscape. Lecture: three hours per week. Laboratory: one two-hour period per week. Required for the geology major.

**GEOL 161 Historical Geology** 4 hrs  
 The origin, development and succession of earth materials, surface and life forms, culminating in one present scene and organic population. Field trips



and reports may be required. Required for the geology major and minor. Lectures: three hours per week. Laboratory: one two-hour period per week. Prereq: *GEOL 160 or department permission.*

**GEOL 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Prereq: *Department permission.*

**GEOL 200 Introduction to Hydrology** 3 hrs  
Study of physical, chemical and biological elements of rivers, lakes, wetlands and groundwater, and the economic, social, political and legal issues currently associated with these systems. Required for the hydrogeology major. Prereq: *GESC 108 or GEOL 160 or GESC 202 or department permission.*

**GEOL 228 Mineralogy** 4 hrs  
A study of the crystallography, crystal chemistry and identification of the most important rock forming and economic minerals of the crust of the earth. Lecture: three hours per week. Laboratory: two hours per week. Prereq: *CHEM 121.*

**GEOL 229 Rocks of Michigan** 2 hrs  
The identification and classification of rocks with special emphasis on characteristics used in the field. Prereq: *GESC 108 or GEOL 160.*

**GEOL 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Prereq: *Department permission.*

**GEOL 325 Geomorphology** 3 hrs  
A detailed study of surface features and the degradational, aggradational and structural processes by which they are formed. Worldwide examples are used extensively. Prereq: *GESC 108 or GEOL 160 and GEOL 161 or department permission.*

**GEOL 326 Structural Geology** 4 hrs  
Introduction to the terminology, geometry, kinematics and mechanics of rock deformation. Laboratory emphasizes geometric techniques of structural analysis. Lecture: three hours per week. Laboratory: two hours per week. Prereq: *GEOL 161 and MATH 107.*

**GEOL 329 Igneous and Metamorphic Petrology** 4 hrs  
A study of the texture, chemistry, classification, origin and evolution of igneous and metamorphic rocks. Lecture: three hours per week. Laboratory: two hours per week. Not open to students with credit in GEOL 229. Winter term only. Prereq: *GEOL 160 and GEOL 228.*

**GEOL 330 Sedimentology and Stratigraphy** 4 hrs  
The properties, description and classification of sedimentary rocks; processes and environments of sediment deposition; principles and techniques of stratigraphy. Field trips and reports required. Prereq: *GEOL 120 or GEOL 161 or ZOO 222.*

**GEOL 331 Paleontology** 4 hrs  
Origin and development of life on earth and the environments in which animal assemblages lived. Study of the principles involved in the interpretation of fossils. Systematic study of the features of the organisms most important in the fossil record. Lecture: three hours per week; laboratory: one two-hour period per week. Prereq: *GEOL 120 or GEOL 161 or ZOO 222.*

**GEOL 355 Field Geology I** 2 hrs  
Theory and practice of precision mapping using tape, alidade, plane table and stadia rod in local area. With GEOL 356, satisfies the field require-

ment for major in geology. May include field study in a quarry. Prereq: *GEOL 229, GEOL 160, and GEOL 326.*

**GEOL 356 Field Geology II** 3 hrs  
Instruction and practice in pace-traverse mapping, measurement of stratigraphic sections and a mapping of areal geology and geologic structure in the Rocky Mountain west. With GEOL 355, satisfies field requirement for geology major. Prereq: *GEOL 326, GEOL 329, GEOL 330, and GEOL 355; or department permission.*

**GEOL 370 Glacial Geology** 3 hrs  
A study of the glacial geomorphology and stratigraphy of the Pleistocene drift with emphasis on the character of the drift, sheets, their soils and lithology, and the techniques of study as applied to the Wisconsin Stage in the state of Michigan. Comparisons drawn with the movements and deposits of modern glaciers; Paleoclimatic cycles of Precambrian and Paleozoic glacial ages and theories stressed. Field trips and reports required. Prereq: *GESC 108 or GEOL 160, GEOL 161, GEOL 330 or department permission.*

**GEOL 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Prereq: *Department permission.*

**GEOL 387 Cooperative Education in Geology** 3 hrs  
Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in geology. The program consists of two work experiences (GEOL 387/GEOL 487) alternating with full-time University attendance. A written report is required at the end of each employment period. Graded on a credit/no credit basis. Prereq: *Completion of sophomore year, geology major. Admittance by application only.*

**GEOL 428 Optical Mineralogy** 4 hrs  
Study of the optical properties of crystalline matter with petrographic microscope used to identify non-opaque and some opaque minerals, using crushed fragments and some thin-sections. Prereq: *GEOL 228 and PHY 224.*

**GEOL 430 Petroleum Geology** 3 hrs  
A study of the origin, migration and accumulation of petroleum; reservoir analysis, exploration and development techniques. Lecture: two hours per week. Laboratory: two hours per week. Prereq: *GEOL 161, GEOL 326, GEOL 330.*

**GEOL 439 Economic Geology** 3 hrs  
A study of the geochemical behavior of metallic elements; the origin, processes, controls and classification of ore deposits. Lecture: two hours per week. Laboratory: two hours per week. Prereq: *GEOL 228.*

**GEOL 448 Hydrogeology** 3 hrs  
Subsurface water occurrence, distribution, relationships to surface water and precipitation; subsurface flow, especially as related to well water production; tests of aquifers; well drilling and installation; ground water exploration and recharge; legal problems. Prereq: *GESC 108 or GEOL 160, algebraic ability, and junior standing.*

**GEOL 459 Aquifer Analysis** 3 hrs  
Study of the analysis of aquifer parameters and groundwater flow using analytical, numerical and statistical computer methods. Prereq: *GEOL 448, and either GESC 475 or CNST 201.*

**GEOL 460 Contaminant Hydrology** 3 hrs  
Study of hydrochemistry, pollution pathways and transport of contaminants. Prereq: *BOTN 221, CHEM 121-CHEM 122, and GEOL 448.*

**GEOL 470 Quantitative Methods in Geography and Geology** 3 hrs

Introduction to current techniques and methods applicable to geographic and geologic problems. A laboratory course emphasizing statistical analyses and computer applications.

*Prereq: Geography, geology or earth science major, junior standing, or department permission.*

**GEOL 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GEOL 487 Cooperative Education in Geology** 3 hrs

Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in geology. The program consists of two work experiences (GEOL 387/GEOL 487) alternating with full-time University attendance. A written report is required at the end of each employment period. Graded on a credit/no credit basis.

*Prereq: Completion of sophomore year, geology major. Admittance by application only.*

**GEOL 488/489/490 Internship** 4/5/6 hrs

Supervised internship in some aspect of geology that is of mutual interest to the qualified student and the place the student will work. This experience is designed to integrate academic training with practical application. May be taken only once for credit.

*Prereq: Department permission and placement.*

**GEOL 497/498/499 Independent Study** 1/2/3 hrs

Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.

*Prereq: Department permission.*

**Geography and Earth Science Courses****GESC 108 Earth Science** 4 hrs

Selected topics and concepts from geology, physical geography, meteorology and oceanography provide the basis for understanding current environmental problems and for perceiving fundamental options as humans increase pressure on the world's resources and ecosystems. A requirement for both the major and minor in geography. Not open to students who have credit in GESC 202. Lecture: three hours per week. Laboratory: one two-hour period per week.

**GESC 114 National Parks and Monuments** 2 hrs

An analysis of the geology, vegetation and wildlife that led to the designation of certain U.S. lands as national parks, monuments and recreational areas. The environmental impact of people on the ecology of these areas resulting from population pressures of camping, trail use, fire, tourist services and recreational facilities; NPS conservation policies that govern preservation of our heritage. Illustrated lectures and demonstrations.

**GESC 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GESC 202 Science for Elementary Teachers** 3 hrs

Lectures and laboratory deal with earth science concepts and teaching methodology. Nationally used elementary science curricula acquaint the student with techniques of teaching basic earth science concepts. Emphasis on student-centered, process-oriented approaches widely used in elementary classrooms. Not open to students with credit in GESC 108. Lecture: two hours per week. Laboratory: one two-hour period per week.

**GESC 208 Natural Environmental Hazards** 3 hrs

Analysis of devastating earthquakes, volcanic eruptions, floods, violent storms, freezes and other environmental catastrophes, emphasizing their causes and human adjustments to these events.

**GESC 227 Topographic Maps** 2 hrs

Interpretation of distances, slopes and terrain features as shown on topographic contour maps. Preparation of contour maps from numerical data and of topographic profiles from contour maps; the correlation of landforms and landform patterns with the geologic materials and processes responsible for them.

*Prereq: GESC 108.*

**GESC 250 Introduction to Coastal Processes** 3 hrs

Description and analysis of the physical and biogeographical processes of ocean and lake coasts. Distribution and origins of coastal environments. Natural and human modification of beach, river valley, estuary, marsh, delta and coral reef environments by waves, currents and tides. Classroom demonstrations and field trips.

*Prereq: GESC 108 or BIOL 105 or department permission.*

**GESC 277/278/279 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GESC 303 Field Geography** 3 hrs

Techniques in the observation and analysis of geographic features in the field. Emphasizes individual and group problem formulation, problem solving of geographic questions by using the scientific method, and combining traditional field exploration with the use of library aids.

**GESC 305 Aerial Photograph Interpretation** 3 hrs

Analysis of black and white and color infrared photographs for land use planning, environmental assessment, geology and resource management. Weekly lab exercises. Optional field trip.

*Prereq: GESC 108 and algebra/trigonometry, or department permission.*

**GESC 309 Plate Tectonics** 3 hrs

An introduction to plate tectonics—i.e., continental drift and seafloor spreading—emphasizing the historical development of this new theory. Topics include the theory's influence on improving our understanding of the close relationships between earthquakes, volcanic eruptions, mountain building, the formation of continents, and the origin of and eventual destruction of oceans. Lecture: three hours per week.

*Prereq: GESC 108 or GEOL 160 or GESC 202 or department permission.*

**GESC 320 The Oceans** 3 hrs

A study of the world's oceans, including coasts, waves, currents, tides, sediments, marine geology, properties of sea water, the energy balance, oceanographic research techniques and marine resources, stressing physical oceanography.

*Prereq: GESC 108 or GEOL 160 or GESC 202 or department permission.*

**GESC 324 Weather** 3 hrs

Introduction to the properties and processes that create weather, including an analysis of conditions aloft, the formation of storms, and methods and problems of weather forecasting.

*Prereq: GESC 108 or department permission.*

**GESC 327 Soil Science** 3 hrs

The mineralogical, physical, chemical, and engineering properties of soils as related to soil formation, groundwater movement, soil erosion, plant-soil relationships and land development capability. Field trips and exercises required. Fall semester only.

*Prereq: GESC 108 or GEOL 160 or department permission.*

**GESC 347 Teaching Earth Science and Physical Geography** 3 hrs  
The techniques of teaching laboratory-centered earth science and physical geography courses, emphasizing inquiry teaching and questioning techniques. Practical experience is obtained by teaching actual earth science and physical geography classes. *A requirement for teacher certification in earth science, geology and geography. Not open to students on academic probation.*

*Prereq: GESC 108 or equivalent and junior standing or department permission.*

**GESC 350 Biogeography** 3 hrs  
Analysis of the distribution, geologic setting and ecological function of inland freshwater lakes and Great Lakes coasts. Emphasis on sediment, vegetation, wildlife, waterfowl and fisheries resources.

*Prereq: GESC 108 or BIOL 224; GESC 250 recommended.*

**GESC 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GESC 387 Cooperative Education in Earth Science** 3 hrs  
Four to six months of full-time employment at a firm or agency chosen for imparting a practical educational experience in earth science or land use planning. The program consists of two work experiences (GESC 387 and GESC 487) alternating with full-time University attendance. A written report is required at the end of each employment period. Graded on a credit/no credit basis.

*Prereq: Completion of sophomore year, earth science or urban and regional planning major. Admittance by application only.*

**GESC 401 Cartography** 3 hrs  
A lecture-laboratory course in the techniques of map making and visual representation of geographic information. The study and construction of several map projections, the evaluation of maps and the use of map-drawing instruments. One hour lecture and four hours laboratory per week.

**GESC 402 Advanced Cartography** 3 hrs  
A continuation of GESC 401. Emphasizes the student's production of thematic maps; the use of press-on materials, tapes and acetate overlays; scribing, computer mapping; reproduction techniques. One hour lecture, four hours laboratory per week.

*Prereq: GESC 401 or department permission.*

**GESC 424 Climatology** 3 hrs  
An analysis of the world's climate types, including characteristics, classification, controls and their effects on world soils and natural vegetation.

*Prereq: GESC 324.*

**GESC 425 Severe and Unusual Weather** 3 hrs  
Analysis of cyclones, blizzards, thunderstorms, tornadoes, hurricanes and other catastrophic weather phenomena. Their environmental impact and prediction.

*Prereq: GESC 324.*

**GESC 450 Lake and Coastal Management** 3 hrs  
An analysis of modern coastal management problems of inland lakes and Great Lakes coasts. Selected topics include beach erosion, dredging, loss of wetlands, wildlife habitat degradation and impact of shoreline development.

*Prereq: GESC 250 or GESC 350 or department permission.*

**GESC 470 Quantitative Methods in Geography and Geology** 3 hrs  
Introduction to current techniques and methods applicable to geographic and geologic problems. A laboratory course emphasizing statistical analyses and computer applications.

*Prereq: Geography, geology or earth science major, junior standing, or department permission.*

**GESC 475 Computer Mapping** 3 hrs  
A laboratory course introducing interactive operation of microcomputers to produce maps on line printers and plotters. Students learn to develop and apply computer mapping graphics, databases, digitized data and a simple geographic information system. Two hours instruction and two hours laboratory each week.

*Prereq: A course in computer programming (FORTRAN) or cartography is recommended.*

**GESC 476 Introduction to Geographic Information Systems** 3 hrs  
Introduction to basic Geographic Information Systems (GIS) concepts, geographic referencing and to available software programs. Includes theory on map projections, mapping techniques, data collection and compilation, and data analysis. Microcomputer oriented.

*Prereq: GESC 401 or GESC 475 or department permission.*

**GESC 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GESC 485 Introduction to Remote Sensing** 3 hrs  
Introduction to remote sensing techniques and types of imagery, including multispectral, thermal and radar images. Emphasis on image enhancement and interpretation in regard to land-use planning and resource management.

*Prereq: GESC 305 or department permission.*

**GESC 487 Cooperative Education in Earth Science** 3 hrs  
Four to six months of full-time employment at a firm or agency chosen for imparting a practical educational experience in earth science or land use planning. The program consists of two work experiences (GESC 387 and GESC 487) alternating with full-time University attendance. A written report is required at the end of each employment period. Graded on a credit/no credit basis.

*Prereq: Completion of sophomore year, earth science or urban and regional planning major. Admittance by application only.*

**GESC 488/489/490 Internship** 4/5/6 hrs  
Supervised internship in some aspect of earth science or land use that is of mutual interest to the qualified student and the place the student will work. This experience is designed to integrate academic training with practical application. May be taken only once for credit.

*Prereq: Department permission and placement.*

**GESC 495/GPLN 495 Environmental Assessment and Planning** 3 hrs  
An examination of the program elements of environmental impact statements. Geobased data sources are explored and analyzed. Impact statements are prepared by the class and existing impact statements are evaluated.

*Prereq: GPLN 215 or BIOL 224.*

**GESC 497/498/499 Independent Study** 1/2/3 hrs  
Advanced study on an individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.

*Prereq: Department permission.*

### Geography Courses in Historic Preservation

**GHPR 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GHPR 277/278/279 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GHPR 335 Historic Preservation**

3 hrs

Introduction to general concepts and goals of historic preservation. The built environment as a cultural heritage resource; objectives of cultural surveys and inventories; methods of preservation, conservation, planning and interpretation.

*Prereq: GEOG 115 recommended.*

**GHPR 377/378/379 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GHPR 387 Cooperative Education in Historic Preservation**

3 hrs

Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in historic preservation, historic administration or heritage interpretation. The program consists of two work experiences (GHPR 387/GHPR 487) alternating with full-time University attendance. A written report is required at the end of each employment period. Graded on a credit/no credit basis.

*Prereq: Completion of sophomore year, historic preservation or selected minor. Admittance by application only.*

**GHPR 436 Historic Preservation Field Project**

3 hrs

Specially arranged, supervised field experiences and application of theoretical viewpoints to field problems in historic preservation.

*Prereq: Department permission.*

**GHPR 437 Historic Preservation Field Project**

6 hrs

Specially arranged, supervised field experiences and application of theoretical viewpoints to field problems in historic preservation.

*Prereq: Department permission.*

**GHPR 477/478/479 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**GHPR 487 Cooperative Education in Historic Preservation**

3 hrs

Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in historic preservation, historic administration or heritage interpretation. The program consists of two work experiences (GHPR 387/GHPR 487) alternating with full-time attendance at the University. A written report is required at the end of each employment period. Graded on a credit/no credit basis.

*Prereq: Completion of junior year, historic preservation or related minor.*

**GHPR 488/489/490 Internship**

4/5/6 hrs

Supervised internship in some aspect of historic preservation, historic administration or heritage interpretation that is of mutual interest to the qualified student and the place the student will work. This experience is designed to integrate academic training with practical application. May be taken only once for credit.

*Prereq: Department permission and placement.*

**GHPR 497/498/499 Independent Study**

1/2/3 hrs

Advanced study on an individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students

in the senior year under the general conditions prescribed for honors courses.

*Prereq: Department permission.*

**Urban and Regional Planning Courses****GPLN 215 Introduction to Urban and Regional Planning**

3 hrs

A general introduction to concepts and techniques of urban and regional planning. An overview of land-use planning tools and ordinances, urban and rural planning issues and preparation of general development plans. Discussion of urban and regional planning as a career, in both public agencies and private firms.

*Prereq: Not open to freshmen.*

**GPLN 306 Comprehensive Planning and Zoning**

3 hrs

A course studying issues of comprehensive planning, zoning and land-use regulation. Topics include preparation of a General Development Plan, current and recent zoning issues, land use legislation, and the drafting and use of state and local zoning ordinances. A base course for Urban and Regional Planning students as well as a valuable perspective to anyone interested in rural, urban or regional development issues.

*Prereq: GPLN 215.*

**GPLN 407 Housing and Residential Development**

3 hrs

A course for students interested in planning, administrative and sociological aspects of housing, emphasizing the important role of housing in American society. Issues covered include housing programs, neighborhood development activities, construction and rehabilitation of residential units, and planning techniques and regulations for residential areas. Information is presented through lectures and readings; students will also work on a preliminary site layout of a housing development.

*Prereq: GPLN 215.*

**GPLN 409 Professional Practice for Planners**

3 hrs

A senior-level course for urban and regional planning majors and minors, intended to be taken concurrently with GPLN 410. A seminar format is used to present a series of topics relating to professional practice in planning. Readings, case studies, simulations and guest speakers are used to expose students to professional activities, including public hearings, dealing with community controversies, and professional-level communication techniques. Topics also deal with issues of professional ethics and certification.

*Prereq: GPLN 215 and senior standing. Coreq: GPLN 410.*

**GPLN 410 Site Planning Studio**

3 hrs

A studio course in urban planning, gives hands-on experience in developing a site plan. Using an actual site and client, a project will be taken through the various stages of plan development. Activities include program analysis, data collection, development of alternative solutions, and selection and presentation of a final site plan.

*Prereq: GPLN 215 and GPLN 306 and senior standing.*

**GPLN 435 History of Urban Form and Function**

3 hrs

Historically important periods of urban planning are analyzed in select cities throughout the world and in the United States. Comparisons are made between city plans from other cultures and our own. GEOG 332 is recommended.

**GPLN 495/GESC 495 Environmental Assessment and Planning**

3 hrs

An examination of the program elements of environmental impact statements. Geo-based data sources are explored and analyzed. Impact statements are prepared by the class, and existing impact statements are evaluated.

*Prereq: GPLN 215 or BIOL 224.*



# History and Philosophy

Web site: [www.emich.edu/public/history/hisphi.html](http://www.emich.edu/public/history/hisphi.html)

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## HISTORY SECTION

**Professors:** Richard Henry Abbott, Lee R. Boyer, George Cassar, Robert Citino, Margot I. Duley, Richard Goff, Daryl Hafter, Michael Homel, H. Roger King, Walter G. Moss, Gersham A. Nelson, Janice J. Terry, Jiu-Hwa Upshur, JoEllen Vinyard, James C. Waltz

**Associate Professors:** Ronald Delph, Pamela Graves, Mark Higbee, Roger Long, Philip Schmitz

**Assistant Professors:** Michael McNally, Russell Olwell, Michael Schroeder

**Instructor:** Joseph Engwenyu

## PHILOSOPHY SECTION

**Professors:** Michael Carlsen-Jones, Margaret Crouch, Thomas Franks, Kate Mehuron, Michael H. Reed, William A. Miller

**Assistant Professors:** Jill Dieterle

Through study in this department students can gain knowledge of past events and ideas, develop skills in analysis and evaluation, and prepare for success in a variety of positions in education or with local, state, national, and international governmental and private agencies. Students also may develop a sound foundation for postgraduate study in the humanities or social studies, or in such applied fields as law, religion and business. Additional educational opportunities are offered regularly through overseas travel-study programs and other off-campus enrichment experiences.

The department also participates in offering honors courses, programs in public law and government, public administration, area studies, language and international trade, African American studies, technology and society, and women's studies.

### Degrees:

Bachelor of Arts and Bachelor of Science

### Programs of Study

#### Majors:

Area studies (Africa, Asia-Far East, Latin America, Middle East and North Africa, Soviet Union)

History

History for secondary education

Philosophy

Social science

Social studies for secondary education (major-minor combined)

#### Minors:

Area studies (Africa, Asia-Far East, Latin America, Middle East and North Africa, Soviet Union)

History

History for secondary, K-12, and special education-secondary

Philosophy

Religious studies

Social science group minor (not for teacher education)

Graduate programs under the auspices of the department are the Master of Arts in history, the M.A. program in social science, the M.A. program in liberal studies with a concentration in social science and American culture, and the Graduate Certificate in state and local history. See the graduate catalog for program descriptions.

### Advising

Advising is available in the History and Philosophy Department for all areas of study listed above, with the exception of programs in el-

ementary education which are the responsibility of the Teacher Education Department. In the History and Philosophy Department, advising appointments should be made through the department secretary at 734.487.1018.

### Advising Coordinators:

History, social science, area studies: Richard Goff

History, social science, area studies, religion: Margot Duley

Philosophy: Margaret Crouch

## Area Studies Majors

### ISIS major code: HS04

The interdisciplinary area studies major helps students understand the background and specific problems of a world cultural or geopolitical area: Africa, Asia-Far East, Latin America, Middle East and North Africa, or the Soviet Union. Courses drawn from several departments supply information on the area's economy, geography, history, politics, society and general cultural background. The program also provides a foundation for graduate work with an area of specialization or preparation for careers in government service or private business.

Students can also utilize independent study courses available through some departments for one, two or three hours of credit to be applied as elective credit in the major area. Majors are required to minor in one of the following: anthropology (except Soviet Union), economics, geography, history, political science or sociology; except Latin America majors may instead elect a minor in Spanish culture, Spanish language or Spanish literature.

## Area Studies Major—Africa

### ISIS major code: HS0405

#### Required basic courses: ..... 9

#ECON 201 Principles of Economics I (satisfies general education requirement III.3) ..... 3

#ECON 202 Principles of Economics II (satisfies general education requirement III.4) ..... 3

#GEOG 110 World Regions (satisfies general education requirement III.3) ..... 3

#### Required area courses: ..... 15

#ANTH 236 Peoples and Cultures of Africa (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) ..... 3

ECON 385 Economic Development ..... 3

GEOG 322 Geography of Africa ..... 3

HIST 347 Sub-Saharan Africa to 1885 ..... 3

PLSC 372 Government and Politics of Sub-Saharan Africa ..... 3

#### Area electives: ..... 6

Choose six credits from the following:

#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) (3)

ANTH 336/SOCL 336 Social and Cultural Change (3)

ECON 370 Comparative Economic Systems (3)

GEOG 240 Geographic Perspectives on Third World Development (3)

GEOG 518 Problems of Sub-Saharan Africa (3)

#HIST 342 North Africa, 1798 to the Present (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)

#HIST 348 20th-Century Africa (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/hist/ugrad/major/areaafrica.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/hist/ugrad/major/areaafrica.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

## Area Studies Major—Asia-Far East

ISIS major code: HS0401

**Required basic courses:** ..... 9

#ECON 201 Principles of Economics I (satisfies general education requirement III.3) ..... 3

#ECON 202 Principles of Economics II (satisfies general education requirement III.4) ..... 3

#GEOG 110 World Regions (satisfies general education requirement III.3) ..... 3

**Required area courses:** ..... 14

ECON 385 Economic Development ..... 3

GEOG 318 Geography of Asia ..... 3

*One of:* ..... 3

\*HIST 441 The Far East to 1800 (3)

\*HIST 442 Modern China (3)

HIST 555 Studies in Far Eastern History ..... 2

PLSC 374 Asian Political Systems ..... 3

**Area electives:** ..... 7

Choose seven credits from the following:

#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3), ANTH 336/SOCL 336 Social and Cultural Change

FA 421 History of Oriental Art

GEOG 240 Geographic Perspectives on Third World Development

GEOG 326/HIST 326 History and Geography of Modern Asia

HIST 301 The Religions of South and East Asia, \*HIST 441 The Far East to 1800, or \*HIST 442 Modern China

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/hist/ugrad/major/areaasia.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/hist/ugrad/major/areaasia.html).

**Total:** ..... 30 hours

*\*One of these courses must be taken to fulfill area requirements. The other may be taken as an area elective.*

*#Advising note:* 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.

## Area Studies Major—Latin America

ISIS major code: HS0402

Students electing the Latin American area studies major are strongly urged to minor in Spanish language, literature or culture.

**Required basic courses:** ..... 9

#ECON 201 Principles of Economics I (satisfies general education requirement III.3) ..... 3

#ECON 202 Principles of Economics II (satisfies general education requirement III.4) ..... 3

#GEOG 110 World Regions (satisfies general education requirement III.3) ..... 3

**Required area courses:** ..... 15

#ANTH 233 Peoples and Cultures of Mexico (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) ..... 3

ECON 385 Economic Development ..... 3

GEOG 321 Geography of Latin America ..... 3

*One of:* ..... 3

\*HIST 355 Latin America: Colonial Period (3)

\*#HIST 356 Latin America: National Period (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)

\*HIST 457 History of Mexico (3)

PLSC 367 Contemporary Political Systems of Latin America ..... 3

**Area electives:** ..... 6

Choose six credits from the following:

#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3), #ANTH 233 Peoples and Cultures of Mexico (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), ANTH 336/SOCL 336 Social and Cultural Change

ECON 370 Comparative Economic Systems

GEOG 240 Geographic Perspectives on Third World Development, GEOG 317/HIST 317 History and Geography of Spanish America, GEOG 512 Middle America and the Caribbean World, GEOG 513 South American Lands

\*HIST 355 Latin America: Colonial Period, \*#HIST 356

Latin America: National Period (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), \*HIST 457 History of Mexico, HIST 560 Studies in Latin American History

SPNH 302 The Cultures of Spanish America, #SPNH 351 Survey of Spanish American Literature (satisfies general education requirement IV.1 or IV.2), #SPNH 352 Survey of Spanish American Literature (satisfies general education requirement IV.1 or IV.2), SPNH 445 Spanish-American Prose, SPNH 454 Modernism in Spanish America

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/hist/ugrad/major/arealat.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/hist/ugrad/major/arealat.html).

**Total:** ..... 30 hours

*\*One of these courses must be taken to fulfill area requirements. The others may be taken as area electives.*

*#Advising note:* 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.

## Area Studies Major—Middle East and North Africa

ISIS major code: HS0403

**Required basic courses:** ..... 9

#ECON 201 Principles of Economics I (satisfies general education requirement III.3) ..... 3

#ECON 202 Principles of Economics II (satisfies general education requirement III.4) ..... 3

#GEOG 110 World Regions (satisfies general education requirement III.3) ..... 3

**Required area courses:** ..... 9

ECON 385 Economic Development ..... 3

- One of: (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) .... 3  
 \*#HIST 341 The Middle East, 1798 to the Present (3)  
 \*#HIST 342 North Africa, 1798 to the Present (3)  
 PLSC 371 Government and Politics of the Middle East ..... 3

**Area electives:** ..... 12

- Choose 12 credits from the following:  
 #ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3), #ANTH 236 Peoples and Cultures of Africa (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), ANTH 336/SOCL 336 Social and Cultural Change  
 ECON 585 Economic Growth and Development  
 GEOG 240 Geographic Perspectives on Third World Development, GEOG 322 Geography of Africa  
 HIST 302 Near Eastern and Western Religions, \*#HIST 341 The Middle East, 1798 to the Present (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), \*#HIST 342 North Africa, 1798 to the Present (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), HIST 543 Nationalism and Modernization in the Middle East and North Africa  
 LITR 351 World Mythology

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/areamid.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/areamid.html).

**Total:** ..... 30 hours

\*One of these courses must be taken to fulfill area requirements. The other may be taken as an area elective.

#Advising note: 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.

**Area Studies Major—Soviet Union**

ISIS major code: HS0404

**Required basic courses:** ..... 9

- #ECON 201 Principles of Economics I (satisfies general education requirement III.3) ..... 3  
 #ECON 202 Principles of Economics II (satisfies general education requirement III.4) ..... 3  
 #GEOG 110 World Regions (satisfies general education requirement III.3) ..... 3

**Required area courses:** ..... 12

- GEOG 314 Geography of Russia and Neighboring States ... 3  
 HIST 344 Russia since 1855 ..... 3  
 HIST 547 19th-Century Ideological Background of the Russian Revolution ..... 3  
 PLSC 361 Russian Politics in Transition ..... 3

**Area electives:** ..... 9

- Choose nine credits from the following:  
 ECON 370 Comparative Economic Systems  
 GEOG 316/HIST 316 History and Geography of Modern Europe  
 GEOG 516 Problems in Soviet Geography  
 HIST 332 Modern Europe 1815-1919, HIST 333 Europe since 1919, HIST 343 Russia to 1855, HIST 550 20th-Century Russia  
 PLSC 462 Russian Foreign Relations

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/areasov.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/areasov.html).

**Total:** ..... 30 hours

#Advising note: 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.

**History Major**

ISIS major code: HS01

**Required courses:** ..... 9

- One of: ..... 3  
 #HIST 101 Western Civilization to 1648 (satisfies general education requirement III.2) (3)  
 #HIST 102 Western Civilization, 1648 to World War I (satisfies general education requirement III.2 or, if #HIST 101 is taken, III.4) (3)  
 #HIST 103 20th-Century Civilization (satisfies general education requirement III.2 or, if #HIST 102 is taken, III.4) (3)  
 #HIST 123 The United States to 1877 (satisfies general education requirement III.2) ..... 3  
 HIST 300 Historical Research and Writing ..... 3

**Restricted electives:** ..... 15

Choose six hours in one area, six hours in another, and three hours in the remaining area. Courses must be 300 level or above:

- A. United States and Canada (includes HIST 303)  
 B. Europe  
 C. Africa, Asia, History of Religions (HIST 301, HIST 302), Latin America

**Unrestricted electives:** ..... 6

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.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/hist.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/hist.html).

**Total:** ..... 30 hours

#Advising note: 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.

**Philosophy Major**

ISIS major code: HS02

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 non-teaching major.

**Required Courses:** ..... 12

- One of: ..... 3  
 #PHIL 130 Introduction to Logic (satisfies general education requirement IV.3) (3)  
 PHIL 281 Symbolic Logic (3)  
 PHIL 230 History of Philosophy: Ancient ..... 3  
 PHIL 231 History of Philosophy: Modern ..... 3  
 PHIL 232 History of Philosophy: 19th Century ..... 3

<b>Electives:</b> .....	<b>21</b>
Choose four courses at the 300 or 400 level: .....	12
Choose nine credits from other philosophy courses: .....	9

*Note:* Only one in the following pair of courses may be counted toward the major: #PHIL 100 Introduction to Philosophy (satisfies general education requirement IV.3) or #PHIL 110 Philosophies of Life (satisfies general education requirement IV.3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/phil.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/phil.html).

**Total:** ..... **33 hours**

*#Advising note:* 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.

## History Major

### Secondary Teacher Certification

**ISIS major code: HS31**

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 history, certification code "CC" and, depending on the minor selected, endorsement in economics ("CA"), geography ("CB"), political science ("CD"), psychology ("CE"), sociology ("CF"), or social studies ("RX"). This program of studies meets all requirements of the National Council for the Social Studies. The certification test covering this field is #09, "History."

**Teaching major:** ..... **30 hours**

#HIST 102 Western Civilization, 1648 to World War I (satisfies general education requirement III.2 or, if #HIST 101 is taken, III.4) .....	3
#HIST 103 20th-Century Civilization (satisfies general education requirement III.2 or, if #HIST 102 is taken, III.4) .....	3
One of: .....	3
#HIST 123 The United States to 1877 (satisfies general education requirement III.2) (3)	
#HIST 124 The United States, 1877 to the Present (satisfies general education requirement III.2, or if #HIST 123 is taken, III.4) (3)	
HIST 300 Historical Research and Writing .....	3
Choose six hours of history courses 300 level or above in two of the following areas and three hours in the remaining area: .....	6
United States and Canada	
Europe	
Latin America, Africa, Asia, History of Religions (HIST 301, HIST 302)	
One further course in history; not including HIST 100 or HIST 481. Major should include at least eight hours of U.S. history, including HIST 123 or HIST 124 or both.	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/hist\\_ts.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/hist_ts.html).

*#Advising note:* 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.

## Social Studies Group Major (with a Minor in Economics, Geography, History or Political Science)

### Secondary Teacher Certification

**ISIS major code: HS34**

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 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 studies meets all requirements of the National Council for the Social Studies. The certification test covering this field is #84, "Social Studies."

**Teaching major:** ..... **36 hours**

#### Required courses

#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	3
#ECON 202 Principles of Economics II (satisfies general education requirement III.4) .....	3
#GEOG 107 Introduction to Geography (satisfies general education requirement III.3) .....	3
#GEOG 110 World Regions (satisfies general education requirement III.3) .....	3
GEOG 320 Geography of the United States and Canada .....	3
#HIST 109 World History to 1500 (satisfies general education requirement III.2) .....	3
#HIST 110 World History since 1500 (satisfies general education requirement III.4) .....	3
#HIST 123 The United States to 1877 (satisfies general education requirement III.2) .....	3
#HIST 124 The United States, 1877 to the Present (satisfies general education requirement III.4) .....	3
HIST 300 Historical Research and Writing (or any other course designated as writing-intensive by the History and Philosophy Department) .....	3
#PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1) .....	3
PLSC 301 The American Legal System .....	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/sosc\\_ts.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/hist/ugrad/major/sosc_ts.html).

*#Advising note:* 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.

## Social Science Major

**ISIS major code: HS03**

The social science major requires a total of 36 credit hours, including electives, chosen from history, anthropology, sociology, economics, geography and political science.

The major must include at least eight credit hours in each of three areas from the seven areas of concentration listed below.

Of the 36 credit hours, at least 14 must be in courses at the 300 level or above.

Students may not minor in any of the fields included in his/her areas of concentration for this major.

**Areas of concentration** ..... **(choose three)**

*World history:* .....

    Choose two of the following: .....

        #HIST 101 Western Civilization to 1648 (satisfies  
general education requirement III.2) (3)



#HIST 102 Western Civilization, 1648 to World War I (satisfies general education requirement III.2 or, if #HIST 101 is taken, III.4) (3)

#HIST 103 20th-Century Civilization (satisfies general education requirement III.2 or, if #HIST 102 is taken, III.4) (3)

#HIST 106 Asian and African Civilizations (satisfies general education requirement III.2) (3)

One world history course at the 300 level or above ..... 2-3

*United States history:* ..... 8-9

#HIST 123 The United States to 1877 (satisfies general education requirement III.2) ..... 3

#HIST 124 The United States, 1877 to the Present (satisfies general education requirement III.4) ..... 3

One United States or Canadian history course at the 300 level or above ..... 2-3

*Anthropology:* ..... 8-9

#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) ..... 3

An anthropology course at the 300 level or above ..... 3

Any other anthropology course ..... 2-3

*Sociology:* ..... 8-9

#SOCL 105 Introductory Sociology (satisfies general education requirement III.3) ..... 3

A sociology course at the 300 level or above ..... 3

Any other sociology course ..... 2-3

*Economics:* ..... 8-9

#ECON 201 Principles of Economics I (satisfies general education requirement III.3) ..... 3

#ECON 202 Principles of Economics II (satisfies general education requirement III.4) ..... 3

An economics course at the 300 level or above ..... 2-3

*Geography:* ..... 8-9

#GEOG 110 World Regions (satisfies general education requirement III.3) ..... 3

An Area III geography course at the 300 level or above ..... 3

Any other area III geography course ..... 2-3

*Political science:* ..... 8-9

Choose one of the following: ..... 3

#PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1)

A political science course at the 300 level or above ..... 3

Any other political science course ..... 2-3

**Electives**

Choose courses from any of the above fields to complete the required 36 hours, except HIST 100 and HIST 481.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/hist/ugrad/major/ssg.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/hist/ugrad/major/ssg.html).

**Total:** ..... **36 hours**

*#Advising note:* 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.

**Area Studies Minor—Africa**

ISIS minor code: HS01

**Required area courses:** ..... **15**

#ANTH 236 Peoples and Cultures of Africa (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) ..... 3

ECON 385 Economic Development ..... 3

GEOG 322 Geography of Africa ..... 3

HIST 347 Sub-Saharan Africa to 1885 ..... 3

PLSC 372 Government and Politics of Sub-Saharan Africa 3

**Area electives:** ..... **5**

Choose five credits from the following:

#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3), ANTH 336/SOCL 336 Social and Cultural Change

ECON 370 Comparative Economic Systems

GEOG 240 Geographic Perspectives on Third World Development

GEOG 518 Problems of Sub-Saharan Africa

#HIST 342 North Africa, 1798 to the Present (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), #HIST 348 20th-Century Africa (satisfies general education requirement III.4 and the cross-cultural/international studies requirement)

**Total:** ..... **20 hours**

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Area Studies Minor—Asia-Far East**

ISIS minor code: HS07

**Required area courses:** ..... **14**

ECON 385 Economic Development ..... 3

GEOG 318 Geography of Asia ..... 3

One of: ..... 3

\*HIST 441 The Far East to 1800 (3)

\*HIST 442 Modern China (3)

HIST 555 Studies in Far Eastern History ..... 2

PLSC 374 Asian Political Systems ..... 3

**Area electives:** ..... **6**

Choose six credits from the following:

#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3), ANTH 336/SOCL 336 Social and Cultural Change

FA 421 History of Oriental Art

GEOG 240 Geographic Perspectives on Third World Development

GEOG 326/HIST 326 History and Geography of Modern Asia

HIST 301 The Religions of South and East Asia, \*HIST 441 The Far East to 1800, or \*HIST 442 Modern China

**Total:** ..... **20 hours**

*\*One of these courses must be taken to fulfill area requirements. The other may be taken as an area elective.*

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Area Studies Minor—Latin America**

ISIS minor code: HS08

**Required area courses:** ..... **15**

#ANTH 233 Peoples and Cultures of Mexico (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) ..... 3

ECON 385 Economic Development ..... 3

GEOG 321 Geography of Latin America ..... 3

- One of: ..... 3  
 \*HIST 355 Latin America: Colonial Period, \*HIST 356 Latin America: National Period (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)  
 \*HIST 457 History of Mexico (3)  
 PLSC 367 Contemporary Political Systems of Latin America ..... 3

**Area electives:** ..... 5

Choose five credits from the following:

- #ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3), #ANTH 233 Peoples and Cultures of Mexico (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), ANTH 336/SOCL 336 Social and Cultural Change  
 ECON 370 Comparative Economic Systems  
 GEOG 240 Geographic Perspectives on Third World Development, GEOG 317/HIST 317 History and Geography of Spanish America, GEOG 512 Middle America and the Caribbean World, GEOG 513 South American Lands  
 \*HIST 355 Latin America: Colonial Period, \*HIST 356 Latin America: National Period (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), \*HIST 457 History of Mexico, HIST 560 Studies in Latin American History  
 SPNH 302 The Cultures of Spanish America, #SPNH 351 Survey of Spanish American Literature (satisfies general education requirement IV.1 or IV.2), #SPNH 352 Survey of Spanish American Literature (satisfies general education requirement IV.1 or IV.2), SPNH 445 Spanish-American Prose, SPNH 454 Modernism in Spanish America

**Total:** ..... 20 hours

*\*One of these courses must be taken to fulfill area requirements. The others may be taken as area electives.*

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Area Studies Minor—Middle East and North Africa

**ISIS minor code: HS10**

**Required area courses:** ..... 9

- ECON 385 Economic Development ..... 3  
 One of: (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) .... 3  
 \*HIST 341 The Middle East, 1798 to the Present (3)  
 \*HIST 342 North Africa, 1798 to the Present (3)  
 PLSC 371 Government and Politics of the Middle East ..... 3

**Area electives:** ..... 11

Choose 11 credits from the following:

- #ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3), #ANTH 236 Peoples and Cultures of Africa (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), ANTH 336/SOCL 336 Social and Cultural Change  
 ECON 585 Economic Growth and Development  
 GEOG 240 Geographic Perspectives on Third World Development, GEOG 322 Geography of Africa

- HIST 302 Near Eastern and Western Religions, \*HIST 341 The Middle East, 1798 to the Present (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), \*HIST 342 North Africa, 1798 to the Present (satisfies general education requirement III.4 and the cross-cultural/international studies requirement), HIST 543 Nationalism and Modernization in the Middle East and North Africa  
 LITR 351 World Mythology

**Total:** ..... 20 hours

*\*One of these courses must be taken to fulfill area requirements. The other may be taken as an area elective.*

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Area Studies Minor—Soviet Union

**ISIS minor code: HS09**

**Required area courses:** ..... 12

- GEOG 314 Geography of Russia and Neighboring States ... 3  
 HIST 344 Russia since 1855 ..... 3  
 HIST 547 19th-Century Ideological Background of the Russian Revolution ..... 3  
 PLSC 361 Russian Politics in Transition ..... 3

**Area electives:** ..... 8

Choose eight credits from the following:

- ECON 370 Comparative Economic Systems  
 GEOG 316/HIST 316 History and Geography of Modern Europe  
 GEOG 516 Problems in Soviet Geography  
 HIST 332 Modern Europe 1815-1919, HIST 333 Europe since 1919, HIST 343 Russia to 1855, HIST 550 20th-Century Russia  
 PLSC 462 Russian Foreign Relations

**Total:** ..... 20 hours

### History Minor

**ISIS minor code: HS02**

One of: (satisfies general education requirement III.2) ..... 3

- \*HIST 101 Western Civilization to 1648 (satisfies general education requirement III.2) (3)  
 \*HIST 102 Western Civilization, 1648 to World War I (satisfies general education requirement III.2 or, if #HIST 101 is taken, III.4) (3)  
 \*HIST 103 20th-Century Civilization (satisfies general education requirement III.2 or, if #HIST 102 is taken, III.4) (3)

One of: (satisfies general education requirement III.2) ..... 3

- \*HIST 123 The United States to 1877 (satisfies general education requirement III.2) (3)  
 \*HIST 124 The United States, 1877 to the Present (satisfies general education requirement III.2, or if #HIST 123 is taken, III.4) (3)

**Restricted electives:** ..... 12

Choose six hours of courses at the 300 level or above in one of the following areas and three hours in each of the other two areas:

- United States and Canada  
 Europe  
 Africa, Asia, History of Religions, Latin America

**Unrestricted electives:** ..... 2-3

Note: No more than three 100-level courses may be counted toward the minor.

HIST 100 The Comparative Study of Religion and HIST 481 The Teaching of Social Studies may not be counted toward the minor.

**Total:** ..... 20-21 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**History Minor**

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

**ISIS minor code: HS31**

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."

*One of:* (satisfies general education requirement III.2) ..... 3

\*#HIST 101 Western Civilization to 1648 (satisfies general education requirement III.2) (3)

\*#HIST 102 Western Civilization, 1648 to World War I (satisfies general education requirement III.2 or, if #HIST 101 is taken, III.4) (3)

\*#HIST 103 20th-Century Civilization (satisfies general education requirement III.2 or, if #HIST 102 is taken, III.4) (3)

*One of:* (satisfies general education requirement III.2) ..... 3

\*#HIST 123 The United States to 1877 (satisfies general education requirement III.2) (3)

\*#HIST 124 The United States, 1877 to the Present (satisfies general education requirement III.2, or if #HIST 123 is taken, III.4) (3)

Choose six hours of courses at the 300 level or above in one of the following areas and three hours in each of the other two areas:  
 United States and Canada  
 Europe  
 Africa, Asia, History of Religions (HIST 301, HIST 302), Latin America

Two hours of unrestricted elective(s) ..... 2

No more than three 100-level courses may be counted toward the minor. HIST 100 and HIST 481 may not be counted. Secondary education certification requires at least eight hours of United States history.

**Total:** ..... 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Religious Studies Minor**

**ISIS minor code: HS04**

**Required course:** ..... 3

#HIST 100 The Comparative Study of Religion (satisfies general education requirement IV.3) ..... 3

**Restricted electives:** ..... 12\*

Choose four courses from the following:

#PHIL 215 Philosophy of Religion (satisfies general education requirement IV.3)

ANTH 338 Anthropology of Religion

HIST 301 The Religions of South and East Asia, HIST 302 Near Eastern and Western Religions, HIST 303 History of American Religion

LITR 251 The Bible as Literature

#PSY 225 Psychology of Religion (satisfies general education requirement IV.3)

SOCL 320 Sociology of Religion

**Electives:** ..... 5-6\*

Choose two additional courses from the restricted electives list or from the following:

#PHIL 220 Ethics (satisfies general education requirement IV.3), PHIL 260 Existentialism

#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3)

CLAS 301 Mythology

#FA 107 Art History Survey I (satisfies general education requirement IV.4), FA 340 History of Classical Art, FA 341 History of Renaissance Art

HIST 327 Europe in Early Middle Ages 400-1050; HIST 330 Europe in the Renaissance and Reformation

LITR 351 World Mythology, LITR 409 The Development of American Literature, LITR 414 English Renaissance Prose and Poetry 1500-1660

(No more than three of the seven courses in the minor may be chosen from a single area: fine arts, literature and history.)

**Total:** ..... 20-21 hours

*\*Certain independent study courses and special topics courses may be counted as restricted electives or electives with the approval of the advising coordinator of religious studies.*

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Social Science Group Minor (Non-Teaching)**

**ISIS minor code: HS06**

The social science minor requires a total of 24 credit hours chosen from history, anthropology, sociology, economics, geography and political science.

The minor must include at least eight credit hours each in two of the disciplines listed above.

Of the 24 credit hours, at least eight must be at the 300 level or above.

Students majoring in any of the fields listed above may not choose any courses from that field for this minor.

This minor cannot be taken together with the social science major.

**Areas of concentration (choose two)**

*World history:* ..... 8-9

Choose two of the following: ..... 6

#HIST 101 Western Civilization to 1648 (satisfies general education requirement III.2) (3)

#HIST 102 Western Civilization, 1648 to World War I (satisfies general education requirement III.2 or, if #HIST 101 is taken, III.4) (3)

#HIST 103 20th-Century Civilization (satisfies general education requirement III.2 or, if #HIST 102 is taken, III.4) (3)

#HIST 106 Asian and African Civilizations (satisfies general education requirement III.2) (3)

One world history course at the 300 level or above ..... 2-3

*United States history:* ..... 8-9

#HIST 123 The United States to 1877 (satisfies general education requirement III.2) ..... 3

#HIST 124 The United States, 1877 to the Present (satisfies general education requirement III.2, or if #HIST 123 is taken, III.4) .....	3
One United States or Canadian history course at the 300 level or above .....	2-3
<i>Anthropology:</i> .....	8-9
#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) .....	3
An anthropology course at the 300 level or above .....	3
Any other anthropology course .....	2-3
<i>Sociology:</i> .....	8-9
#SOCL 105 Introductory Sociology (satisfies general education requirement III.3) .....	3
A sociology course at the 300 level or above .....	3
Any other sociology course .....	2-3
<i>Economics:</i> .....	8-9
#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	3
#ECON 202 Principles of Economics II (satisfies general education requirement III.4) .....	3
An economics course at the 300 level or above .....	2-3
<i>Geography:</i> .....	8-9
#GEOG 110 World Regions (satisfies general education requirement III.3) .....	3
An Area III geography course at the 300 level or above .....	3
Any other Area III geography course .....	2-3
<i>Political science:</i> .....	8-9
Choose one of the following: .....	3
#PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1) .....	3
A political science course at the 300 level or above .....	3
Any other political science course .....	2-3
<b>Electives</b>	
Choose courses from any of the above fields to complete the required 36 hours, except HIST 100 and HIST 481.	
<b>Total:</b> .....	<b>24 hours</b>

#Advising note: These courses satisfy both general education requirements and requirements of the minor. 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.

## Philosophy Minor

ISIS minor code: HS03

<b>Required Courses:</b> .....	<b>9</b>
PHIL 230 History of Philosophy: Ancient .....	3
PHIL 231 History of Philosophy: Modern .....	3
PHIL 232 History of Philosophy: 19th Century .....	3
<b>Electives:</b> .....	<b>15</b>
Choose two courses at the 300 or 400 level: .....	6
Choose nine credits from other philosophy courses: .....	9
Note: Only one in each of the following pairs of courses counts toward the minor:	
#PHIL 100 Introduction to Philosophy (satisfies general education requirement IV.3) or #PHIL 110 Philosophies of Life (satisfies general education requirement IV.3)	
#PHIL 120 Introduction to Critical Reasoning (satisfies general education requirement IV.3) or #PHIL 130 Introduction to Logic (satisfies general education requirement IV.3)	
<b>Total:</b> .....	<b>24 hours</b>

#Advising note: These courses satisfy both general education requirements and requirements of the minor. In order to avoid taking excess hours, stu-

dents are advised to take these courses, or approved substitutes from another institution, as part of the general education requirements.

## History Courses

**HIST 100 The Comparative Study of Religion** 3 hrs  
An introduction to the systematic study of religious experience and expression; organized around representative motifs, phenomena and institutions, and illustrated with relevant examples from the various historical religious traditions. *Satisfies general education philosophy/religion requirement. Does not satisfy general education history requirement. Does not count for social science major or minor, or history major or minor.*

**HIST 101 Western Civilization to 1648** 3 hrs  
A topical survey of western civilization from its Greco-Roman origins to the 17th century. Cultural development and institutional growth are emphasized. Greco-Roman contributions, the Judeo-Christian heritage, Byzantine and Islamic cultures, European expansion and militarism, the Renaissance, and the Reformation are among the major topics considered.

**HIST 102 Western Civilization, 1648 to World War I** 3 hrs  
A topical survey of western civilization from the 17th century to World War I. Cultural development and institutional growth are emphasized. The Baroque era, Enlightenment, political and industrial revolutions, nationalism, and imperialism are among major topics considered.

**HIST 103 20th-Century Civilization** 3 hrs  
An examination of the international developments of the 20th century, with particular emphasis on the interactions between the West and other world cultures.

**HIST 104 Quest for Power: Famous Figures in History** 3 hrs  
An examination of the lives and times of selected leaders from the ancient and modern worlds. Examples of figures to be covered are Pericles, Nero, Napoleon I and Adolf Hitler. Major literary monuments of the periods will be examined as well. Team taught by a member of the History Department and a classicist. This course satisfies one literature or one history requirement. *Note: See Honors Humanities Courses, page 30.*

**HIST 106 Asian and African Civilizations** 3 hrs  
The civilizations of the Moslem world, Africa, India and East Asia in historical perspective. Philosophical outlook, cultural development and technological advances are emphasized with attention also being given to social and economic changes in the period since 1500.

**HIST 109 World History to 1500** 3 hrs  
A survey of world civilizations (Africa, Asia, Europe, Western Hemisphere) from prehistory to 1500. The course will emphasize the diversity and interrelationships of world cultures and civilizations.

**HIST 110 World History since 1500** 3 hrs  
A survey of world civilizations (Africa, Asia, Europe, Western Hemisphere) from 1500 to the present. The course will emphasize the diversity and interrelationships of world cultures and civilizations.

**HIST 123 The United States to 1877** 3 hrs  
A study of United States history through the Reconstruction following the Civil War.

**HIST 124 The United States, 1877 to the Present** 3 hrs  
A study of United States history from the end of Reconstruction to the present.

**HIST 151 Reason and Revolution** 3 hrs  
An examination of the transition in political history, philosophy, art, literature, and music from Puritan England and Louis XIV's France to Napoleon. Team taught by members of the Art and History departments. This course satisfies one art or one history requirement. *Note: See Honors Humanities Courses, page 30.*



- HIST 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- HIST 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: One course in history or department permission.*
- HIST 290 Introduction to the History of Technology** 3 hrs  
An introduction to western technology from medieval times to the present. Examines the process of technical change, the nature of technological systems, the diffusion of technological improvements, and the role of technology in broader historical movements.
- HIST 300 Historical Research and Writing** 3 hrs  
Practice and development of the historian's skills by means of frequent written student exercises. Students will examine and criticize their own and one another's work. Required of history majors.
- HIST 301 The Religions of South and East Asia** 3 hrs  
A survey of the religious traditions of India, Ceylon, Burma, Thailand, China, Tibet and Japan, showing the interaction of folk religion with the developing concepts and institutions of Hinduism, Buddhism, Confucianism, Taoism and Shinto.  
*Prereq: HIST 100 or HIST 106.*
- HIST 302 Near Eastern and Western Religions** 3 hrs  
A survey of the historical evolution of the several religions originating in western Asia, concentrating especially on the development and interaction of Judaism, Christianity and Islam.  
*Prereq: HIST 100 or HIST 101.*
- HIST 303 History of American Religion** 3 hrs  
A survey of religious institutions and ideas in relation to American culture from colonial times to the present.  
*Prereq: One course in American history.*
- HIST 305 Indians of the United States** 3 hrs  
An ethnohistory of Indian peoples and nations of the United States from their origins to the present.  
*Prereq: One course in history or department permission.*
- HIST 309 France to 1789** 3 hrs  
A study of the main currents in early modern times with special emphasis on the impact of the Protestant Revolt and the Renaissance on French society, the rise of absolutism, and the political and intellectual background of the French Revolution.
- HIST 310 France since 1789** 3 hrs  
An examination of the major trends in French history since the start of the Revolution. Stresses cultural, social, economic, intellectual and political trends, and treats the ways in which France has been a seedbed for new movements in Europe.  
*Prereq: HIST 102 or HIST 332.*
- HIST 313 Michigan History** 3 hrs  
A survey of major economic, social and political developments in Michigan from prehistoric times to the present. Emphasizes the period prior to the 20th century.
- HIST 315 History of Black Americans** 3 hrs  
A history of Americans of African ancestry from colonial times to the present. Emphasizes slavery, the post-Civil War South, northward migration and urban settlement, and philosophies of racial progress.  
*Prereq: One course in American history.*
- HIST 316 History and Geography of Modern Europe** 3 hrs  
An interdisciplinary and geographical-historical study of modern Europe with the geographical component emphasizing information of an urban, demographic, occupational and environmental nature, and with the history component stressing major political, social and cultural developments. A requirement for majors in language and international trade. Must be taken concurrently with GEOG 316.  
*Prereq: GEOG 110 and either HIST 101, HIST 102 or HIST 103.*
- HIST 317 History and Geography of Spanish America** 3 hrs  
An interdisciplinary geographical-historical study of Spanish America, emphasizing political, cultural and socioeconomic forces from the conquest to the present. Stresses similarities and differences within and between nations and the special relationships that exist between the nations and the United States. A requirement for majors in language and international trade. Must be taken concurrently with GEOG 317.  
*Prereq: GEOG 110 and either HIST 101, HIST 102 or HIST 103.*
- HIST 319 The Civil Rights Movement in the United States** 3 hrs  
Focusing on the 20th-century history of the African American struggle for equality, this course examines the rise of de jure racial segregation as a social system; the origins and early history of the Civil Rights movement; the movement's development from the 1920s through the 1950s and its historic victories over segregation in the 1950s and 1960s.  
*Prereq: HIST 124 or HIST 315.*
- HIST 322 Women and Gender in the Ancient World** 3 hrs  
An investigation of life for women in antiquity, focusing on the sex-gender system of Greek and Roman societies. Literary, inscriptional and other evidence will be studied to disclose the classical roots of western beliefs and attitudes about women.  
*Prereq: One 100-level course in history.*
- HIST 323 Greek History** 3 hrs  
Examines the Greeks' achievements from the Bronze Age to the Roman conquest, focusing on the period after 800 B.C.E. Emphasizes political, social and economic developments; also considers literary, intellectual and artistic accomplishments.  
*Prereq: One course in history or department permission.*
- HIST 324 Roman History** 3 hrs  
Examines the Romans' achievements from earliest times to the German conquest, focusing on the period 500 B.C.E.-C.E. 500. Emphasizes political, social and economic developments; also considers literary, intellectual and artistic accomplishments.  
*Prereq: One course in history or department permission.*
- HIST 326 History and Geography of Modern Asia** 3 hrs  
An interdisciplinary geographical-historical study of modern Asia. The geography component emphasizes urban, demographic, occupational and environmental trends and developments; the history component stresses major political and social developments and international relations. A requirement for majors in the Japanese program in language and international trade. Must be taken concurrently with GEOG 326.  
*Prereq: GEOG 110 and either HIST 103 or HIST 106.*
- HIST 327 Europe in Early Middle Ages 400-1050** 3 hrs  
Analyzes emergence of common European culture from fusion of Roman, Germanic and Christian elements. Includes examination of Merovingian and Carolingian culture, Anglo-Saxon Britain, Ottonian Germany, medieval Christianity and medieval women. Cultural institutions of Celts, Moslems and Vikings also explored.  
*Prereq: HIST 101 and HIST 102.*
- HIST 328 Europe in Late Middle Ages 1050-1400** 3 hrs  
Examines local feudalism and rise of French and English feudal monarchies. Special emphasis on crusades, medieval Christianity and heresy, women, and Paris and Venice in late middle ages. Culture explored through extensive use of contemporary literature and art.  
*Prereq: HIST 101 and HIST 102.*
- HIST 330 Europe in the Renaissance and Reformation** 3 hrs  
A survey of the political, cultural, religious, and economic history of Europe from the Italian Renaissance to the Peace of Westphalia.

- HIST 332 Modern Europe 1815-1919** 3 hrs  
A study of the development and conflicts of the national states of Europe from the Congress of Vienna to the Treaty of Versailles.
- HIST 333 Europe since 1919** 3 hrs  
A history of Europe since Versailles with emphasis upon the Communist, Fascist and Nazi revolutions and their impact on the world, the origins and outbreak of the Second World War, and the post-1945 era.  
*Prereq: Junior standing or department permission.*
- HIST 335 History of Women in Europe** 3 hrs  
A study of the history of women and views of women in western society from the 18th century to the present. Emphasizes the struggles, setbacks and achievements of the women's movements in the context of modern European history.  
*Prereq: One course in history.*
- HIST 336 History of Women in the United States and Great Britain, 1800 to the Present** 3 hrs  
A comparative study of the history of women in the United States and Great Britain. Examines the ideology of the nature and role of women, the history of women's lives, the impact of industrialization, and the feminist movements of the 19th and 20th centuries.  
*Prereq: One course in history or department permission.*
- HIST 338 German History Since 1815** 3 hrs  
Considers unification and Empire, World War I, the Weimar Republic, the rise of National Socialism, World War II and postwar Germany.  
*Prereq: Junior or department permission.*
- HIST 339 Arab-Israeli Conflict** 3 hrs  
Course covers a major, ongoing issue in 19th- and 20th-century history, namely the conflicts between Arabs and Israelis in the Middle East.  
*Prereq: One history course at 100- or 200-level, or PLSC 371.*
- HIST 341 The Middle East, 1798 to the Present** 3 hrs  
A survey of the political, economic and social history of the Middle East, including Turkey and Iran, with emphasis on the growth of independence movements within the area.  
*Prereq: Junior standing or department permission.*
- HIST 342 North Africa, 1798 to the Present** 3 hrs  
A survey of the political, economic and social history of North Africa, Egypt and the Sudan, emphasizing the internal movements for independence from colonial powers.  
*Prereq: Junior standing or department permission.*
- HIST 343 Russia to 1855** 3 hrs  
A survey of political, economic, and cultural trends in the history of Russia from Rurik to the death of Tsar Nicholas I, with special emphasis on the growth of tsarist absolutism.  
*Prereq: Junior standing or department permission.*
- HIST 344 Russia since 1855** 3 hrs  
A survey of the political, economic, and diplomatic history of imperial Russia and the Soviet Union from the great reforms of the 1860s to the present.  
*Prereq: Junior standing or department permission.*
- HIST 347 Sub-Saharan Africa to 1885** 3 hrs  
The historical evolution of sub-Saharan African civilizations including their origins, interrelations and responses to European colonialism.  
*Prereq: Junior standing or department permission.*
- HIST 348 20th-Century Africa** 3 hrs  
A detailed examination of black Africa's response to the historical experience of European colonialism, along with the evolution of those responses, forms and patterns applicable not only to Africa, but also to the entire non-western world.
- HIST 350 History of Canada** 3 hrs  
A survey of the development of Canada from prehistoric times to the present with an emphasis on social and economic topics.
- HIST 355 Latin America: Colonial Period** 3 hrs  
Surveys the history of Spanish America and Portuguese America from the conquest to the independence era; stressing political, social and economic aspects.  
*Prereq: Junior standing or department permission.*
- HIST 356 Latin America: National Period** 3 hrs  
Surveys the history of Latin America from the independence era to the present, stressing political, social, intellectual and economic topics.  
*Prereq: Junior standing or department permission.*
- HIST 362 United States Urban History** 3 hrs  
The development of United States cities from the commercial town of colonial times to the industrial metropolis of today. Emphasizes urban economic activities, boss and reform politics, immigrant and racial minorities, and city and suburban expansion.  
*Prereq: Junior standing or HIST 123 or HIST 124.*
- HIST 364 United States Military History** 3 hrs  
A study of the origins and developments of military institutions, traditions, and practices in the United States from the colonial period to the present, with attention given to the interrelationship between military history and political, social and economic conditions in the United States and the world. A requirement for cadets in ROTC programs.  
*Prereq: One course in history.*
- HIST 365 The Old South** 3 hrs  
The South from the colonial foundations to the formation of the Confederacy in 1861.  
*Prereq: HIST 123 and junior standing.*
- HIST 375 Modern India** 3 hrs  
The development and maturing of British rule in India against the background of Indian culture. Examines the rise and development of Indian nationalism, the struggle for independence, and the problems faced by India since 1947.  
*Prereq: Junior standing or department permission.*
- HIST 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: One course in history or department permission.*
- HIST 380 American Colonies to Independence** 3 hrs  
A study of the European prelude to colonization; the founding of the colonies, and their political, economic and social development; the deterioration of the relationship between Great Britain and the American colonies after 1763.  
*Prereq: HIST 123 or equivalent.*
- HIST 385 Civil War and Reconstruction** 3 hrs  
A study of the United States from the Mexican War through the era of Reconstruction. Examines the sectional tensions leading to the Civil War; the political, social, military, and economic aspects of the war; the problems of reconstruction and the rise of the solid South.  
*Prereq: Junior standing.*
- HIST 387 Cooperative Education in History** 3 hrs  
Four to six months of full-time employment in a business or industry chosen to provide practical experience in the student's major field. The program consists of one or two such work experiences alternating with full-time attendance at the University.  
*Prereq: Junior standing. History or social science major. Admittance to program by application only. Department approval.*

- HIST 411 England to 1689** 3 hrs  
The general history of England to the Revolution of 1688, with emphasis on its cultural and constitutional contributions to the modern world.
- HIST 412 England 1689 to Present** 3 hrs  
England in the period of imperial expansion, its industrial and social revolutions and its transition into a modern socially minded nation. A continuation of HIST 411.
- HIST 414 The Automobile Industry and Modern America** 3 hrs  
An examination of the European and American origins of the automobile industry, the emergence of Michigan's dominant position in the industry, and the social, economic and general cultural influence that the automobile and the industry have exerted on 20th-century America.
- HIST 424 The United States from 1917 to 1941** 3 hrs  
A study of United States history from World War I through U.S. entry into World War II. The course covers foreign affairs, national government and politics, economic developments and social trends. World War I, modernization, and cultural conflict of the 1920s and the Great Depression, and New Deal of the 1930s receive special attention.  
*Prereq: HIST 124.*
- HIST 425 The United States from 1941 to 1963** 3 hrs  
A study of United States history from entry into World War II to the death of President John F. Kennedy. The course covers national government and politics, foreign policy, and social history of the American people. World War II diplomacy and home front; Cold War; Truman, Eisenhower and Kennedy administrations; Red Scare; civil rights; suburbanization; mass culture; and other postwar social and cultural trends receive special attention.  
*Prereq: HIST 124.*
- HIST 426 The United States from 1963 to the Present** 3 hrs  
A study of United States history from the presidency of Lyndon B. Johnson to the present. The course covers national government and politics, foreign policy, and social history of the American people. The Great Society; Vietnam War; protest movements of the 1960s; Nixon administration and Watergate; economic, social, and cultural trends of the 1970s and 1980s; the conservative resurgence; and the Reagan Revolution and its aftermath are among topics that receive special attention.  
*Prereq: HIST 124.*
- HIST 427 Europe from Absolutism to Revolution, 1648-1815** 3 hrs  
A political, social and cultural study of Europe from the Peace of Westphalia through the Napoleonic Era. Emphasizes the development of absolutism in France, constitutionalism in England, the Enlightenment and the French Revolution.
- HIST 435 Italy since 1815** 3 hrs  
The political, social and economic development of Italy from the Congress of Vienna to the present. Emphasizes the unification movement, domestic and foreign problems of the 19th and 20th centuries, World War I and its effects, Mussolini and Fascism, World War II, and the new liberal republic.  
*Prereq: Junior standing or department permission.*
- HIST 441 The Far East to 1800** 3 hrs  
A study of the history of China, Korea and Japan from ancient times to the beginning of the 19th century, stressing political, cultural, and social developments and the dominant role of China.  
*Prereq: One history course.*
- HIST 442 Modern China** 3 hrs  
China from 1800 to the present: traditional Confucian China in crisis, impact of the West, reform and revolution. Republican China, the Communist revolution, China since 1949.  
*Prereq: One history course.*
- HIST 443 Modern Japan** 3 hrs  
Japan from 1800 to the present: collapse of the shogunate, 19th-century reforms, rise of the empire to great power status, defeat in World War II, post-war changes. Political, economic and cultural developments are considered.  
*Prereq: Junior standing or department permission.*
- HIST 456 Europe since 1945** 3 hrs  
Study of the political, economic, social and diplomatic history of Europe since the end of World War II, with emphasis on the Cold War, economic recovery and decline, the European integration movement, solidarity and dissension within the communist bloc, stability and unrest within the democracies, and the impact of U.S.-Soviet detente.  
*Prereq: Junior standing or department permission.*
- HIST 457 History of Mexico** 3 hrs  
An introduction to Mexican history from the Amerindian period through the recent past. Examines political, social, economic and cultural developments in the area comprising the present day nation as well as those areas in North America once included in Mexico.  
*Prereq: Junior standing.*
- HIST 463 United States Labor History** 3 hrs  
A history of workers in the United States from colonial times to the present with special emphasis on developments occurring between 1820 and 1940. Considers working-class life and culture, labor unions, government-labor relations, and the impact of economic change.  
*Prereq: One course in history.*
- HIST 464 The Old West, 1540-1890** 3 hrs  
A study of Spanish settlement, the fur trade, great explorations, settlement and expansion, transportation and mining frontiers, the cattle industry and cowboy culture, and the impact on the Indians.  
*Prereq: One course in history.*
- HIST 465 United States Constitutional History** 3 hrs  
A history of the development of the American Constitution from English and American colonial origins to the present.  
*Prereq: HIST 123 or HIST 124 or department permission.*
- HIST 468 The American Mind to the Civil War** 3 hrs  
Ideas and culture in America during the 17th, 18th and early 19th centuries. Includes such subjects as Puritanism, the Enlightenment and Romanticism/Transcendentalism, together with their general cultural implications.  
*Prereq: HIST 123 and junior standing.*
- HIST 469 The American Mind Since the Civil War** 3 hrs  
Ideas and culture in America during the late-19th and 20th centuries. Includes such subjects as pragmatism, social Darwinism, nationalism and internationalism, and liberal and conservative thought together with their general cultural implications.  
*Prereq: One course in history and junior standing.*
- HIST 471 Social and Intellectual History of 19th-Century Europe** 3 hrs  
A detailed study of the original concepts of Europe's 19th-century intellectuals whose works were of major influence in the 19th and 20th centuries.  
*Prereq: Junior standing or department permission.*
- HIST 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: One course in history or department permission.*
- HIST 481 The Teaching of Social Studies** 3 hrs  
For intending teachers in junior and senior high schools. Examines the nature of the subjects included in social science in the public schools

and the problems related to the teaching of history and other social studies. *Not open to students on academic probation.*

**HIST 482 The Age of Washington and Jefferson** 3 hrs

The formation of the new nation during the War for Independence, the creation of the Constitution, the Federalist era, the Republican administration through Madison's term in office, the War of 1812 and postwar diplomacy.

*Prereq: HIST 123 or equivalent.*

**HIST 486 The United States as an Emerging World Power** 3 hrs

The passing of the frontier after the Civil War, the Industrial Revolution, the big city and its problems, Populist revolt and Progressive reform, Imperialism and World War I.

*Prereq: HIST 123 or HIST 124 or equivalent.*

**HIST 487 Cooperative Education in History** 3 hrs

Four to six months of full-time employment in a business or industry chosen to provide practical experience in the student's major field. The program consists of one or two such work experiences alternating with full-time attendance at the University.

*Prereq: Junior standing. History or social science major. Admittance to program by application only. Department approval.*

**HIST 497/498/499 Independent Study** 1/2/3 hrs

Study on an individual basis in areas in which the department does not currently offer formal courses. These courses are restricted to highly proficient students. Students are limited to a maximum of three hours of independent study in history during any semester or session.

*Prereq: Department permission.*

## Philosophy Courses

### I. General Education Courses

**PHIL 100 Introduction to Philosophy** 3 hrs

An introduction to philosophy by the study of important philosophical thinkers, problems and methodologies.

**PHIL 110 Philosophies of Life** 3 hrs

An introduction to differing accounts of what constitutes a meaningful life and how an individual can attain it. Representative topics include the notions of pleasure, love, empathy and power as discussed by such writers as Plato, Epicurus, Nietzsche, Lao Tse and Buddha.

**PHIL 120 Introduction to Critical Reasoning** 3 hrs

An introduction to the techniques of identifying and evaluating arguments. The emphasis will be on the enhancement of reasoning skills through the study of arguments in their natural setting in newspapers, political speeches, advertising, etc. The course also may include such related topics as fallacies, inductive reasoning and the logic of explanation in the social sciences.

**PHIL 130 Introduction to Logic** 3 hrs

An introduction to the analysis of arguments using the theory and techniques of formal logic. The theory underlies most formal systems, including computer applications. Students learn such concepts as deduction and induction and how to prove that arguments are valid or invalid.

**PHIL 212 Philosophy of Art** 3 hrs

Can "art" be defined? Do artists owe a responsibility to society? Should works of art be primarily analyzed as "significant form" or as an expression of the artist's personality? Can we isolate a uniquely "aesthetic" attitude? Through considering such questions, the course introduces the student to philosophical reasoning and analysis.

**PHIL 215 Philosophy of Religion** 3 hrs

A philosophical study of the nature, goals and proper function of religion. Some possible topics are traditional arguments for the existence of

God, grounds for disbelief in God, immortality, religious experience, the nature of religious language, the relation of science to religion, the role of faith and revelation, the connection between religion and ethics.

**PHIL 220 Ethics** 3 hrs

An introduction to the major problems of ethical theory such as the nature of value, the justification of ethical decisions, the idea of obligation, and the application of ethical theory to specific ethical problems, which may concern both personal relationships and important public issues—e.g., abortion, euthanasia, medical experimentation, privacy and surveillance.

**PHIL 221 Business Ethics** 3 hrs

An examination of the relationships between contemporary business values and traditional ethical values. Students will investigate various ethical theories and critically examine, by means of case studies, controversial current business issues.

**PHIL 225 Political Philosophy** 3 hrs

Examines the philosophical bases of political ideology and theory through analysis of a variety of political theories, their component parts, and their basic assumptions. Examples may be taken from the works of such writers as Plato, Aristotle, Hobbes, Locke, Rousseau, Mussolini, Marx and Thoreau.

**PHIL 226 Philosophy of Women** 3 hrs

A consideration of philosophical issues concerning the nature and status of women. Readings from both traditional and contemporary sources. Topics may include scientific and religious views, the ideal society and women's place in it, varieties of feminism, views on sexuality, family and reproduction, and work and the economy.

### II. Other Courses

**PHIL 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**PHIL 230 History of Philosophy: Ancient** 3 hrs

A study of important philosophical developments in western thought from the pre-Socratics through Aristotle. Covers the pre-Socratics, Socrates, Plato and Aristotle.

*Prereq: One course in philosophy other than PHIL 120 or PHIL 130.*

**PHIL 231 History of Philosophy: Modern** 3 hrs

A continuation of PHIL 230 History of Philosophy: Ancient. A study of important philosophical developments in Europe from the Renaissance to the early 19th century. Covers such figures as Descartes, Spinoza, Leibnitz, Hobbes, Locke, Berkeley, Hume and Kant.

*Prereq: One course in philosophy other than PHIL 120 or PHIL 130.*

**PHIL 232 History of Philosophy: 19th Century** 3 hrs

An introduction to the major philosophical themes of the 19th century that dominate 20th century European thought. These themes include the collapse of German Idealism and Romanticism, the death of God, the nature of historical process, evolutionary theory, and the implications of these themes for the concept of human freedom.

*Prereq: One course in philosophy other than PHIL 120 or PHIL 130.*

*Recommended: PHIL 230 or PHIL 231.*

**PHIL 260 Existentialism** 3 hrs

An examination of contemporary existentialist thought about the nature of reality and human existence as reflected in the works of such philosophers as Marcel, Heidegger, Sartre, and Camus and the sources of existentialism as found in the works of Kierkegaard and Nietzsche.

*Prereq: One course in philosophy other than PHIL 120 or PHIL 130.*

*Recommended: PHIL 231.*



**PHIL 277/278/279 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

**PHIL 281 Symbolic Logic** 3 hrs

An introduction to the notation and proof procedures of symbolic logic with emphasis upon the clarification and development of the notion of a formal language.

**PHIL 310 Aesthetics** 3 hrs

A study of philosophical issues relating to works of art and other aesthetic objects. Possible topics include the nature of aesthetic attitude, evaluation, aesthetic meaning and truth, expression in art, the nature of a work of art and basic value of art, the kinds of concepts used to talk about the arts.

*Prereq:* One course in philosophy other than PHIL 120 or PHIL 130.

**PHIL 325 Theory of Knowledge** 3 hrs

An investigation of the nature, scope and limits of knowledge. Some possible topics are the connection between belief and knowledge, knowledge of other people's minds, the reliability of memory, the possibility of certainty in knowledge, theories of truth.

*Prereq:* One course in philosophy other than PHIL 120 or PHIL 130.  
*Recommended:* PHIL 230 or PHIL 231.

**PHIL 355 Philosophy of Law** 3 hrs

A consideration of philosophical questions about the law such as: What sorts of behavior should be illegal? What is punishment supposed to accomplish? When are we justified in punishing a person? How do judges arrive at decisions? Are there really legal principles that cover all the hard cases judges must deal with or do they use their own personal moral values? What is a legal system and how does it differ from a moral code?

*Prereq:* One course in philosophy other than PHIL 120 or PHIL 130, or department permission.

**PHIL 370 Philosophy and Narrative** 3 hrs

This course will focus on philosophical issues relevant to one or more of the following topic areas: philosophical issues in literature and film, theories of drama and performance, the politics of narrative, and recent hermeneutical theory. May be repeated for credit with department permission.

*Prereq:* One course in philosophy other than PHIL 120 or PHIL 130.  
*Recommended:* PHIL 232, PHIL 260 or PHIL 390.

**PHIL 375 Metaphysics** 3 hrs

A study of questions concerning basic structure and ultimate nature of reality. Possible topics include universals and particulars, space and time, determinism and freedom, the self, materialism, idealism, substance and process.

*Prereq:* One course in philosophy other than PHIL 120 or PHIL 130.

**PHIL 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq:* Department permission.

**PHIL 380 Philosophy of Science** 3 hrs

A systematic examination of the main philosophical problems raised by the results and methods of the physical and social sciences. Topics include the problem of meaning, measurement, the interpretation of probability statements, the justification of induction, the concept of cause, the laws of nature, description and explanation, determinism and indeterminism.

*Prereq:* One course in philosophy other than PHIL 120 or PHIL 130.  
*Recommended:* PHIL 325.

**PHIL 390 Phenomenology** 3 hrs

The course attempts to trace the history and development of the phenomenological movement from its origins in the notion of the intentionality of consciousness, beginning with the work of Edmund Husserl and continuing with the later "existential" developments in the field by such thinkers as Heidegger, Sartre and Merleau-Ponty. The course also will study the impact of phenomenology on such varied fields as psychology, sociology and literature.

*Prereq:* One course in philosophy other than PHIL 120 or PHIL 130.  
*Recommended:* PHIL 231 or PHIL 260.

**PHIL 426 Topics in Gender and Philosophy** 3 hrs

An examination of gender and its relationship to other issues from a philosophical perspective. Possible topics include rationality, sexuality, aesthetics, ethics and political theory.

*Prereq:* Two courses in philosophy other than PHIL 120 or PHIL 130.

**PHIL 442 Philosophy of Mind** 3 hrs

A philosophical study of the nature of mind. Examines the logical relations among mental concepts such as consciousness, choice, intention, emotion, feeling, the unconscious; also treats human action, and the possibility and meaning of an adequate explanation of psychological phenomena.

*Prereq:* Two courses in philosophy other than PHIL 120 or PHIL 130.

**PHIL 460 Philosophy of Language** 3 hrs

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.

*Prereq:* Two courses in philosophy.

**PHIL 470 Contemporary European Philosophy** 3 hrs.

An exploration of recent developments in European thought. Possible topics include post-structuralist evaluations of western institutions and ideas, post-Marxist critical theory, the hermeneutic effort to establish interpretation as the basis of philosophical understanding, and the effect of deconstructive thought on philosophy and literature.

*Prereq:* Two courses in philosophy other than PHIL 120 or PHIL 130.  
*Recommended:* PHIL 232, PHIL 260, or PHIL 390.

**PHIL 471 Contemporary British and American Philosophy** 3 hrs

An examination of some of the major philosophical developments in England and the United States since approximately 1900. Considers logical atomism, logical positivism, pragmatism and ordinary language philosophy as reflected in the works of such philosophers as Russell, Carnap, Ayer, James, Dewey, Ryle, Austin and Quine.

*Prereq:* Two courses in philosophy other than PHIL 120 or PHIL 130.  
*Recommended:* PHIL 231.

**PHIL 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq:* Department permission.

**PHIL 497/498/499 Independent Study** 1/2/3 hrs

Advanced study on an individual basis in areas in which the department does not offer a formal course. Restricted to juniors and seniors majoring or minoring in philosophy.

*Prereq:* Department permission.

# Mathematics

Web site: [www.emich.edu/public/math/math.html](http://www.emich.edu/public/math/math.html)

**Don R. Lick**  
**Department Head**  
**515 Pray-Harrold**  
**734.487.1444**  
**E-mail: don.lick@emich.edu**

**Professors:** Gisela E. Ahlbrandt, Donald A. Buckeye, Timothy B. Carroll, Rita Chattopadhyay, Shenghui Chu, Christopher J. Gardiner, John L. Ginther, Geraldine A. Green, Christopher E. Hee, Paul E. Howard, K.G. Janardan, Don R. Lick, Walter Parry, Jayakumar Ramanathan, Kenneth M. Shiskowski, Carla Tayeh, Nelly S. Ullman, Bette Warren

**Associate Professors:** Joanne Caniglia, David B. Folk, David C. Johnson, Jiuqiang Liu, Mohammad A. Rafiq, Kim L. Rescorla

**Assistant Professors:** Mahmoud Al-Khafaji, Gian Mario Besana, Barbara Britton, Lora Durham, Joan Cohen Jones, James R. Walter, Mary Yorke

**Developmental Mathematics Program:** Irene Duranczyk, Karen Holmes, Jill Nugent, Elaine Richards, William Scheffler, Mary Jo St. Louis, Jo Warner

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 programs 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:**

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 concentration in statistics
- Mathematics for the Elementary Teaching Certificate

**Joint Program with Economics:**

Actuarial science and economics

Students needing general program advising should contact the appropriate undergraduate advising coordinator or the department secretary, who will direct students to appropriate faculty members.

Without department permission, no student may receive credit in courses MATH 104, MATH 105, MATH 107, MATH 112 or MATH 119 after credit for MATH 120 has been earned.

Students majoring in mathematics must complete at least nine credit hours and minors must complete at least six credit hours from courses numbered 300 or above.

**Placement into mathematics classes**

Students without credit in an EMU mathematics course, or equivalent transfer credit, will need to obtain placement into an appropriate mathematics course. Those with no declared major should go to Academic Advising; others go to the Mathematics Department. *For some mathematics classes, evidence that the official prerequisites have been satisfied must be presented to the instructor on the first day of class. Students without such evidence will not be permitted to remain in the class. Details will be found in the Class Schedule for that semester.*

**Advising Coordinators:**

Advising Coordinator: Christopher J. Gardiner

Advisers:

- Mathematics: Christopher J. Gardiner
- Mathematics with concentration in statistics: Christopher J. Gardiner, Bette Warren
- Mathematics: Christopher J. Gardiner
- Secondary mathematics education: Joanne Caniglia, Christopher J. Gardiner
- Elementary mathematics education: Donald A. Buckeye, John L. Ginther, Carla Tayeh
- Actuarial examinations: Nelly S. Ullman, Bette Warren
- Actuarial science and economics: Nelly Ullman and Bette Warren (mathematics), Donald W. Pearson (economics)

Graduate study leads to the master's degree in mathematics. The M.A. degree is described in the graduate catalog. For information, contact the graduate advising coordinator, Ken Shiskowski.

Students interested in lucrative careers in business and industry are advised to take the Actuarial Examinations, Part I after completing MATH 223 Multivariable Calculus and Part II after completing MATH 471 Probability and Statistics II. These are the first two of a series of examinations sponsored by the Society of Actuaries.

## Actuarial Science and Economics Major

**ISIS major code: MA02**

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. The first of these covers calculus and linear algebra and the second covers mathematical statistics. MATH 372 and MATH 472 are designed to prepare students for these examinations.

<b>Required courses:</b> .....	<b>53</b>
<i>General education:</i> .....	<b>9</b>
#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	<b>3</b>
#ECON 202 Principles of Economics II (satisfies general education requirement III.4) .....	<b>3</b>
<i>One of:</i> (satisfies general education requirement I.5) .....	<b>3</b>
#COSC 137 Introduction to FORTRAN Programming (3)	
#COSC 138 Computer Science I (3)	
#COSC 237 Computer Programming and Numeric Methods (3)	
<i>Mathematics:</i> .....	<b>29</b>
#MATH 120 Calculus I (satisfies general education requirement I.4) .....	<b>4</b>
#MATH 121 Calculus II (satisfies general education requirement I.4) .....	<b>4</b>
#MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) .....	<b>3</b>
MATH 223 Multivariable Calculus .....	<b>4</b>
MATH 370 Probability and Statistics I .....	<b>4</b>
MATH 372 Problems in Actuarial Studies I .....	<b>3</b>
MATH 436 Introduction to Numerical Analysis .....	<b>3</b>
MATH 471 Probability and Statistics II .....	<b>3</b>
MATH 472 Problems in Actuarial Studies II .....	<b>2</b>
<i>Economics:</i> .....	<b>15</b>
ECON 301 Intermediate Macroeconomic Analysis .....	<b>3</b>
ECON 302 Intermediate Microeconomic Analysis .....	<b>3</b>
ECON 320 Labor Economics .....	<b>3</b>
ECON 340 Money and Banking .....	<b>3</b>
ECON 415 Introduction to Econometrics .....	<b>3</b>

**Restricted electives:** ..... 7  
 Choose electives from courses at the 300 level and above in mathematics, computer science or economics

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/mth/ugrad/major/act.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/mth/ugrad/major/act.html).

**Total:** ..... 60 hours

*#Advising note:* 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.

## Mathematics Major

**ISIS major code: MA01**

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.

**Required courses:** ..... 22

- #MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4
- #MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4
- #MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) ..... 3
- MATH 223 Multivariable Calculus ..... 4
- MATH 370 Probability and Statistics I ..... 4
- One of: ..... 3
  - MATH 411 Abstract Algebra or MATH 416 Linear Algebra (3)
  - MATH 420 Introduction to Analysis (3)

**Restricted electives:** ..... 12

- Choose 12 credits from the following:
- MATH 307 Elementary Number Theory, MATH 319 Mathematical Modeling, MATH 325 Differential Equations, MATH 372 Problems in Actuarial Studies I, MATH 406 Introduction to Computability, MATH 411 Abstract Algebra, MATH 416 Linear Algebra, MATH 418 Applied Linear Algebra, MATH 419 Advanced Mathematical Modeling, MATH 420 Introduction to Analysis, MATH 424 Introduction to Complex Variables, MATH 425 Mathematics for Scientists, MATH 426 Differential Equations II, MATH 436 Introduction to Numerical Analysis, MATH 460 Applied Survey Sampling, MATH 461 Linear Regression Analysis, MATH 462 Design and Analysis of Experiments, MATH 471 Probability and Statistics II, MATH 472 Problems in Actuarial Studies II, MATH 474 Applied Statistics

### Recommended courses for double majors

Students electing a double major with mathematics—in business, the social sciences, biological or physical science—should consult an advising coordinator to choose appropriate mathematics electives. MATH 411 Abstract Algebra, MATH 416 Linear Algebra, and MATH 420 Introduction to Analysis are strongly recommended for double majors and those preparing for graduate work.

- Biology:** MATH 418 Applied Linear Algebra, MATH 471 Probability and Statistics II
- Business:** MATH 325 Differential Equations, MATH 418 Applied Linear Algebra, MATH 436 Introduction to Numerical Analysis, MATH 471 Probability and Statistics II
- Chemistry:** MATH 325 Differential Equations, MATH 418 Applied Linear Algebra, MATH 425 Mathematics for Scientists, MATH 436 Introduction to Numerical Analysis

**Economics:** MATH 325 Differential Equations, MATH 418 Applied Linear Algebra

**Physics:** MATH 325 Differential Equations, MATH 416 Linear Algebra, MATH 418 Applied Linear Algebra, MATH 425 Mathematics for Scientists, MATH 436 Introduction to Numerical Analysis

**Psychology:** MATH 418 Applied Linear Algebra, MATH 471 Probability and Statistics II

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/mth/ugrad/major/mth.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/mth/ugrad/major/mth.html).

**Total:** ..... 34 hours

*#Advising note:* 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.

## Mathematics Major with Concentration in Statistics

**ISIS major code: MA03**

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.

**Required Courses:** ..... 28

- #MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4
- #MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4
- #MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) ..... 3
- MATH 223 Multivariable Calculus ..... 4
- MATH 370 Probability and Statistics I ..... 4
- MATH 461 Linear Regression Analysis ..... 3
- MATH 462 Design and Analysis of Experiments ..... 3
- MATH 471 Probability and Statistics II ..... 3

**Restricted electives:** ..... 9

Students must take nine hours from among the following, at least six of which must be taken from the applied statistics electives:

#### Applied statistics electives:

- MATH 460 Applied Survey Sampling (3)
- MATH 474 Applied Statistics (3)

#### Mathematics Electives:

- MATH 416 Linear Algebra (3)
- MATH 418 Applied Linear Algebra (3)
- MATH 420 Introduction to Analysis (3)
- MATH 472 Problems in Actuarial Studies II (2)

**Additional Requirement:** ..... 3

- #COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) or #COSC 138 Computer Science I (satisfies general education requirement I.5) or #COSC 237 Computer Programming and Numeric Methods (satisfies general education requirement I.5)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/mth/ugrad/major/mthstat.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/mth/ugrad/major/mthstat.html).

**Total:** ..... 37 hours

*#Advising note:* 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.

## Mathematics Major

### Secondary Teacher Certification

ISIS major code: MA31

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 certification test covering this field is #22, "Mathematics."

**Teaching major:** ..... 37

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.

*One of:* (satisfies general education requirement I.5) ..... 3

#COSC 137 Introduction to FORTRAN Programming  
(satisfies general education requirement I.5) (3)

#COSC 138 Computer Science I (satisfies general  
education requirement I.5) (3)

#COSC 237 Computer Programming and Numeric  
Methods (satisfies general education requirement  
I.5) (3)

#MATH 120 Calculus I (satisfies general education  
requirement I.4) ..... 4

#MATH 121 Calculus II (satisfies general education  
requirement I.4) ..... 4

#MATH 122 Elementary Linear Algebra (satisfies general  
education requirement I.4) ..... 3

MATH 211 Introduction to Mathematical Proof ..... 3

MATH 223 Multivariable Calculus ..... 4

#MATH 341 College Geometry (satisfies general education  
requirement I.4) ..... 3

MATH 411 Abstract Algebra ..... 3

MATH 370 Probability and Statistics I (4) (MATH 360 may be  
used with permission)

Six or seven credits from the following list. Credits in mathemat-  
ics, including MATH 120 but not MATH 306, must total at  
least 34 hours.

MATH 307 Elementary Number Theory (3)

MATH 319 Mathematical Modeling (3)

MATH 325 Differential Equations (3)

MATH 372 Problems in Actuarial Studies I (2)

MATH 400 History and Development of Mathematics (3)

MATH 416 Linear Algebra (3)

MATH 420 Introduction to Analysis (3)

MATH 424 Introduction to Complex Variables (3)

MATH 425 Mathematics for Scientists (3)

MATH 471 Probability and Statistics II (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/mth/ugrad/major/mth\\_ts.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/mth/ugrad/major/mth_ts.html).

*#Advising note:* These courses satisfy both general education require-  
ments and requirements of the major. In order to avoid taking excess  
hours, students are advised to take these courses, or approved substitu-  
tes from another institution, as part of the general education require-  
ments.

## Mathematics Major for the Elementary Teaching Certificate

### Elementary and Special Education-Elementary Teacher Certification

ISIS major code: MA33

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 certification test covering this field is #22, "Mathematics."

**Teaching major:** ..... 30

MATH 108 Mathematics for Elementary Teachers I ..... 3

#MATH 109 Mathematics for Elementary Teachers II  
(satisfies general education requirement I.4) ..... 3

#MATH 120 Calculus I (satisfies general education  
requirement I.4) ..... 4

MATH 210 Algebra for Elementary Teachers ..... 3

MATH 240 Geometry for Elementary Teachers ..... 3

MATH 301 Advanced Topics in Elementary  
Mathematics ..... 3

MATH 403 Current Research in Elementary School  
Mathematics ..... 3

Choose eight hours from the following, with at least three hours  
at the 300 or 400 level:

#MATH 110 Mathematical Reasoning (satisfies general  
education requirement I.4) (3)

#MATH 118 Mathematical Analysis for Social Sciences I  
(satisfies general education requirement I.4) (3)

#MATH 122 Elementary Linear Algebra (satisfies general  
education requirement I.4) (3)

#MATH 170 Elementary Statistics I (satisfies general  
education requirement I.4) (3)

MATH 382 Calculators and Microcomputers in Elementary  
Mathematics Education (3)

MATH 401 Mathematics and Its History for Elementary  
Teachers (3)

or other mathematics courses as approved by the advising  
coordinator for elementary mathematics education.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/mth/ugrad/major/mthetc\\_te.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/mth/ugrad/major/mthetc_te.html).

*#Advising note:* 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.

## Mathematics Minor

ISIS minor code: MA02

All minors must fill in a program sheet before graduation—see the un-  
dergraduate advising coordinator.

At least six hours in the minor, at 300 level or above, must be taken  
at Eastern Michigan University.

**Required courses:** ..... 14-15

#MATH 120 Calculus I (satisfies general education  
requirement I.4) ..... 4

#MATH 121 Calculus II (satisfies general education  
requirement I.4) ..... 4

#MATH 122 Elementary Linear Algebra (satisfies general  
education requirement I.4) ..... 3



One of:

- MATH 211 Introduction to Mathematical Proof (3)
- \*MATH 360 Statistical Methods (3)
- \*MATH 370 Probability and Statistics I (4)

**Restricted electives:** ..... 5-6

Choose five to six credits from the following:

- MATH 223 Multivariable Calculus, MATH 307 Elementary Number Theory, MATH 319 Mathematical Modeling, MATH 325 Differential Equations, #MATH 341 College Geometry (satisfies general education requirement I.4), \*MATH 360 Statistical Methods or \*MATH 370 Probability and Statistics I, MATH 372 Problems in Actuarial Studies I, MATH 406 Introduction to Computability, MATH 411 Abstract Algebra, MATH 416 Linear Algebra, MATH 418 Applied Linear Algebra, MATH 419 Advanced Mathematical Modeling, MATH 420 Introduction to Analysis, MATH 424 Introduction to Complex Variables, MATH 425 Mathematics for Scientists, MATH 426 Differential Equations II, MATH 436 Introduction to Numerical Analysis, MATH 460 Applied Survey Sampling, MATH 461 Linear Regression Analysis, MATH 462 Design and Analysis of Experiments, MATH 471 Probability and Statistics II

**Additional Requirement:** ..... 3

- One of: (satisfies general education requirement I.5) ..... 3
- #COSC 137 Introduction to FORTRAN Programming (3)
- #COSC 138 Computer Science I (3)
- #COSC 237 Computer Programming and Numeric Methods (3)

**Total:** ..... 23 hours

*\*It is not permitted to count both MATH 360 and MATH 370 on the minor.*

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Mathematics Minor with Concentration in Statistics

**ISIS minor code: MA04**

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.

**Required courses:** ..... 14

- #MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4
- #MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4
- #MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) ..... 3

One of:

- MATH 211 Introduction to Mathematical Proof (3)
- \*MATH 360 Statistical Methods (3)
- \*MATH 370 Probability and Statistics I (4)

**Restricted electives:** ..... 9

Students must take nine hours from among the following, at least six of which must be taken from the statistics electives:

*Statistics electives:*

- MATH 460 Applied Survey Sampling (3)
- \*MATH 461 Linear Regression Analysis (3)
- MATH 462 Design and Analysis of Experiments (3)
- MATH 471 Probability and Statistics II (3)

MATH 474 Applied Statistics (3)

*Mathematics electives:*

- MATH 211 Introduction to Mathematical Proof (3)
- MATH 223 Multivariable Calculus (4)

**Additional Requirement:** ..... 3

- One of: (satisfies general education requirement I.5) ..... 3
- #COSC 137 Introduction to FORTRAN Programming (3)
- #COSC 138 Computer Science I (3)
- #COSC 237 Computer Programming and Numeric Methods (3)

**Total:** ..... 26 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Mathematics Minor

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

**ISIS minor code: MA31**

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 certification test covering this field is #22, "Mathematics."

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, but not including MATH 304 or MATH 306, must be taken at Eastern Michigan University.

- #MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4
- #MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4
- #MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) ..... 3
- #MATH 341 College Geometry (satisfies general education requirement I.4) ..... 3

One of:

- MATH 360 Statistical Methods (3)
- MATH 370 Probability and Statistics I (4)

One of:

- MATH 304 Middle School Mathematics Methods and Content (3)
- MATH 306 Teaching of High School Mathematics (3)

*#One of:* (satisfies general education requirement I.5) ..... 3

- #COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) (3)
- #COSC 138 Computer Science I (satisfies general education requirement I.5) (3)
- #COSC 237 Computer Programming and Numeric Methods (satisfies general education requirement I.5) (3)

Sufficient credits (normally six) from the following list to bring the total to 23 hours (not including MATH 304, MATH 306 or the COSC elective):

- MATH 211 Introduction to Mathematical Proof (3)
- MATH 223 Multivariable Calculus (4)
- MATH 307 Elementary Number Theory (3)
- MATH 319 Mathematical Modeling (3)
- MATH 325 Differential Equations (3)
- MATH 400 History and Development of Mathematics (3)
- MATH 411 Abstract Algebra (3)

- MATH 416 Linear Algebra (3)
- MATH 420 Introduction to Analysis (3)
- MATH 424 Introduction to Complex Variables (3)

**Total:** ..... 29 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Mathematics Minor for the Elementary Teaching Certificate

#### Elementary and Special Education-Elementary Teacher Certification

ISIS minor code: MA33

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 certification test covering this field is #22, "Mathematics."

- MATH 108 Mathematics for Elementary Teachers I ..... 3
- #MATH 109 Mathematics for Elementary Teachers II  
(satisfies general education requirement I.4) ..... 3
- MATH 210 Algebra for Elementary Teachers ..... 3
- MATH 240 Geometry for Elementary Teachers ..... 3
- MATH 301 Advanced Topics in Elementary  
Mathematics ..... 3

Choose five hours from the following, with at least three hours at the 300 or 400 level:

- #MATH 110 Mathematical Reasoning (satisfies general education requirement I.4) (3)
- #MATH 118 Mathematical Analysis for Social Sciences I (satisfies general education requirement I.4) (3)
- #MATH 120 Calculus I (satisfies general education requirement I.4) (4)
- #MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) (3)
- #MATH 170 Elementary Statistics I (satisfies general education requirement I.4) (3)
- MATH 382 Calculators and Microcomputers in Elementary Mathematics Education (3)
- MATH 401 Mathematics and Its History for Elementary Teachers (3)
- MATH 403 Current Research in Elementary School Mathematics (3)

or other mathematics courses as approved by the advising coordinator for elementary mathematics education.

**Total:** ..... 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Mathematics Courses

#### MATH 097 Pre-College Mathematical Concepts 5 hrs

A mastery-based developmental mathematics course designed to prepare students for a developmental algebra course; covers beginning mathematical concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*  
*Prereq: Program placement.*

#### MATH 097A Pre-College Mathematical Concepts—Part I 3 hrs

The first part of a mastery-based developmental mathematics course designed to prepare students for a developmental algebra course; covers beginning mathematical concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*  
*Prereq: Program placement.*

#### MATH 097B Pre-College Mathematical Concepts—Part II 3 hrs

The second part of a mastery-based developmental mathematics course designed to prepare students for a developmental algebra course; covers beginning mathematical concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*  
*Prereq: MATH 097A or program placement.*

#### MATH 098 Pre-College Introductory Algebra Concepts 5 hrs

A mastery-based developmental mathematics course designed to prepare students to succeed in a college-level mathematics course; covers beginning algebra concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*  
*Prereq: At least "C" in MATH 097 or MATH 097B, or placement.*

#### MATH 098A Pre-College Introductory Algebra Concepts—Part I 3 hrs

The first part of a mastery-based developmental mathematics course designed to prepare students to succeed in a college-level mathematics course; covers beginning algebra concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*  
*Prereq: At least "C" in MATH 097 or MATH 097B, or placement.*

#### MATH 098B Pre-College Introductory Algebra Concepts—Part II 3 hrs

The second part of a mastery-based developmental mathematics course designed to prepare students to succeed in a college-level mathematics course; covers beginning algebra concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*  
*Prereq: At least "C" in MATH 098A, or placement.*

#### MATH 104 Intermediate Algebra 3 hrs

A review of elementary algebra and a continuation into the study of functions, graphs and quadratic equations.  
*Prereq: At least "C" in MATH 098 or MATH 098B, or placement.*

#### MATH 105 College Algebra 3 hrs

Properties of the real numbers; equations and inequalities; functions; sequences; mathematical induction; polynomial, rational, exponential and logarithmic functions; introduction to probability.  
*Prereq: At least a "C" in MATH 104 ("B" or better strongly recommended), or placement.*

#### MATH 107 Plane Trigonometry 2 hrs

An elementary course in plane trigonometry. Students who have good records in high school courses including trigonometric identities, trigonometric equations, and oblique triangles should not take the course.  
*Prereq: At least a "C" in MATH 104 or placement.*

#### MATH 108 Mathematics for Elementary Teachers I 3 hrs

The first of a two-course sequence that examines topics in the elementary school mathematics curriculum from an advanced standpoint, with an emphasis on concepts and problem solving. Topics include number theory, real number systems and their properties, algebra concepts, and

functions. *Required of all students in elementary and later elementary curricula. Open only to prospective elementary teachers.*

*Prereq: At least "C" in MATH 098 or MATH 098B, or placement.*

**MATH 109 Mathematics for Elementary Teachers II** 3 hrs

The second of a two-course sequence that examines topics in the elementary school mathematics curriculum from an advanced standpoint, with an emphasis on concepts and problem solving. Topics include: elementary probability including both experimental and theoretical; elementary statistics including exploratory data analysis, descriptive statistics, and an introduction to inferential statistics; informal geometry including symmetry, similarity and congruence, and measurement.

*Prereq: MATH 108.*

**MATH 110 Mathematical Reasoning** 3 hrs

An introduction to contemporary mathematical thinking for the non-specialist, with the aim of developing the capacity to engage in logical thinking and to read critically the technical information that is so prevalent in modern society. Topics include elementary logic, basic probability and statistics, and applications.

*Prereq: At least "C" in MATH 098 or MATH 098B, or MATH 104, or placement.*

**MATH 112 Topics in Precalculus Mathematics** 4 hrs

Provides a thorough preparation for calculus for students who are insufficiently prepared in college algebra and trigonometry, or who need to review these subjects. Emphasis will be on topics from college algebra and trigonometry that are used in calculus.

*Prereq: MATH 105 and MATH 107, or placement.*

**MATH 118 Mathematical Analysis for Social Sciences I** 3 hrs

Solutions of linear equations and inequalities, vectors and matrices, linear programming, sets, probability. Emphasis on applications.

*Prereq: At least "C" in MATH 098 or MATH 098B, or MATH 104, or placement.*

**MATH 119 Mathematical Analysis for Social Sciences II** 3 hrs

Functions, differentiation of algebraic functions, optimization, exponential and logarithmic functions and their derivatives, an introduction to the definite integral. Emphasis on problem setup and interpretation, and applications.

*Prereq: At least a "C" in MATH 104 ("B" or better strongly recommended), or MATH 105, or placement.*

**MATH 120 Calculus I** 4 hrs

Calculus of functions of a single variable; differential calculus, including limits, derivatives, techniques of differentiation, the Mean Value Theorem and applications of differentiation to graphing, optimization and rates. Integral calculus, including indefinite integrals, the definite integral, the Fundamental Theorem of Integral Calculus, and applications of integration to area and volume.

*Prereq: At least a "C" in MATH 105 and at least a "C" in MATH 107 ("B" or better strongly recommended in both), or at least a "C" in MATH 112, or placement.*

**MATH 121 Calculus II** 4 hrs

Calculus of functions of a single variable continued; additional applications of definite integration to moments, centroids, arc length, surface area and work. Transcendental functions, infinite series, methods of integration, review of conic sections.

*Prereq: At least a "C" in MATH 120.*

**MATH 122 Elementary Linear Algebra** 3 hrs

Vectors and matrices, operations on matrices, determinants, systems of linear equations, linear independence, linear transformations, applications.

*Prereq: At least a "C" in MATH 105 ("B" or better strongly recommended), or MATH 120, or placement.*

**MATH 130 Calculus Laboratory I** 1 hr

Computer laboratory class designed to reinforce the major concepts of first-semester calculus.

*Prereq: Concurrent registration in MATH 120.*

**MATH 170 Elementary Statistics** 3 hrs

An introduction to standard methods in statistics, emphasizing the rationale behind them and their application to problems in a variety of fields. Data summary and representation, measures of center and dispersion, correlation and regression, basic probability, point and interval estimation, and hypothesis testing.

*Prereq: At least a "C" in MATH 098 or MATH 098B, or placement.*

**MATH 177/178/179 Special Topics** 1/2/3 hrs

These special topics courses will be used to teach some aspects of mathematics at an elementary level that would not be regularly offered. This course does not count on a regular major or minor in mathematics.

*Prereq: Department permission.*

**MATH 210 Algebra for Elementary Teachers** 3 hrs

Field properties, complex numbers, number sentences, introduction to coordinate geometry, nature of proof and concept of limit. Open only to prospective elementary teachers.

*Prereq: MATH 108.*

**MATH 211 Introduction to Mathematical Proof** 3 hrs

A transition to upper-level mathematics courses. This course highlights various types of mathematical thinking including direct, indirect and inductive proofs with careful treatment of quantified statements. Topics include sets, number theory and relations. Development of ability to write a precise mathematical proof is the primary goal.

*Prereq: MATH 121 and MATH 122.*

**MATH 223 Multivariable Calculus** 4 hrs

Vector products, lines and planes in three-dimensional space, quadric surfaces, cylindrical and spherical coordinates. Differential calculus of vector functions of a single variable: velocity and acceleration vectors, curvature. Partial differentiation, gradient, chain rule, directional derivatives, tangent planes, application to optimization. Multiple integration, change of coordinates, applications. Taylor's Theorem for Functions of Several Variables, line and surface integrals, Stokes' Theorem, Gauss' Theorem.

*Prereq: At least a "C" in MATH 121, and MATH 122.*

**MATH 240 Geometry for Elementary Teachers** 3 hrs

Informal geometry of the plane and space, congruence and measurement, elementary theorems and proof, and plane coordinate geometry. Open only to prospective elementary teachers.

*Prereq: MATH 108.*

**MATH 277/278/279 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**MATH 301 Advanced Topics in Elementary Mathematics** 3 hrs

Acquaints prospective elementary teachers with new topics in the elementary mathematics curriculum such as algebraic systems, conic sections, trigonometry, statistical procedures and topics in number theory.

*Prereq: MATH 109 or MATH 210 or MATH 240.*

**MATH 304 Middle School Mathematics Methods and Content** 3 hrs

Consideration of the mathematics program in middle school and junior high school, its organization and content, methods of teaching and learning. Not open to freshmen, sophomores or students on academic probation.

*Prereq: MATH 240 or MATH 120.*

**MATH 306 Teaching of High School Mathematics** 3 hrs

Consideration of the mathematics program in the high school, its organization and content, methods of teaching and learning. Does not count on the major or minor. Not open to freshmen, sophomores or students on academic probation.

*Prereq: MATH 120 and CURR 305.*

**MATH 307 Elementary Number Theory** 3 hrs

Primes, Euclidean algorithm and prime factorization, congruences, multiplicative functions, quadratic residues and reciprocity, continued fractions, Diophantine equations, possible applications to cryptology, and/or primality testing.

*Prereq: MATH 211.*

**MATH 319 Mathematical Modeling** 3 hrs

The modeling process; model building and evaluation, techniques of modeling; model fitting and models requiring optimization; empirical model construction—experimental models, dimensional analysis, simulation models, dynamic models; use of derivatives in the modeling process, single and multivariable dynamic models.

*Prereq: MATH 120 and MATH 122.*

**MATH 325 Differential Equations** 3 hrs

First and second order differential equations with applications, linear differential equations, power series solutions, Laplace transforms.

*Prereq: MATH 121 and MATH 122.*

**MATH 341 College Geometry** 3 hrs

An introduction to several geometries such as affine, projective, space-time and non-Euclidean.

*Prereq: MATH 120 and MATH 122.*

**MATH 360 Statistical Methods** 3 hrs

A comprehensive overview of statistical methods and analysis with applications. Topics include descriptive statistics, probability theory, random variables and probability distributions, sampling distributions, estimation and testing hypotheses, correlation and regression, introduction to computer-assisted statistical analysis. A statistical software package (SAS) is used.

*Prereq: MATH 121.*

**MATH 370 Probability and Statistics I** 4 hrs

Basic concepts of probability; expectation, variance, covariance distribution functions and their application to statistical tests of hypothesis; bivariate, marginal and conditional distributions; treatment of experimental data. Applications to problems in science and/or social science are emphasized.

*Prereq: MATH 223.*

**MATH 372 Problems in Actuarial Studies I** 2 hrs

Applications of mathematics to actuarial science. Particular attention paid to subject matter not covered in the regular mathematics curriculum and to special techniques of problem solving appropriate to actuarial science. (This course can be useful in preparing for the Actuarial Examination, Part I-General Mathematics.)

*Prereq: MATH 223; a minimum GPA in mathematics of 3.4 is strongly recommended.*

**MATH 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**MATH 381 The Teaching of Mathematics, K-6** 3 hrs

Learning to teach children in the elementary grades (K-6) the understanding processes of mathematics. Attention is focused on learning-teaching situations and effective use of learning aids. Required of all

students on early elementary and later elementary curricula. *Not open to students on academic probation.*

*Prereq: MATH 109 and CURR 304.*

**MATH 382 Calculators and Microcomputers in Elementary Mathematics Education** 3 hrs

A survey of the uses of calculators and microcomputers, with specific emphasis on their use in the elementary classroom. Emphasis will be placed on problem-solving. A calculator will be required.

*Prereq: MATH 210.*

**MATH 387 Cooperative Education in Mathematics** 3 hrs

Four to six months of full-time employment at an industrial firm specially chosen to provide practical experience in mathematics. The program consists of two work experiences (MATH 387 and MATH 487) alternating with full-time attendance at the University. Use on mathematics major subject to department permission. Graded on a credit/no credit basis.

*Prereq: Junior or senior majoring in mathematics, MATH 223, admittance to program by application only, department permission.*

**MATH 400 History and Development of Mathematics** 3 hrs

The course presents topics in the evolution of mathematics—the historical development of algebra, geometry and calculus provides the major focus. Problems will be assigned that reflect the content and methods of this development.

*Prereq: MATH 121 and MATH 122.*

**MATH 401 Mathematics and Its History for Elementary Teachers** 3 hrs

Topics in the evolution of mathematics from ancient times through the present, with an emphasis on connections with the elementary school curriculum. Development of numeration systems, algebra, different geometries, calculus; including the contributions of different cultures in the development of mathematics.

*Prereq: MATH 240 and MATH 301.*

**MATH 403 Current Research in Elementary School Mathematics** 3 hrs

A brief history of mathematics education, 1890 to present. Special emphasis on important recent research studies. Consideration of various textbook series, use and evaluation of supplementary materials, the place and value of teaching aids. Professional journals will be utilized throughout the course.

*Prereq: MATH 301 and MATH 381.*

**MATH 406 Introduction to Computability** 3 hrs

Computable functions, register machines, recursion, minimalization, Church's thesis, Turing machines, diagonal method, universal programs, decidability, recursive and recursively enumerable sets, undecidability, applications to computer science and the foundations of mathematics.

*Prereq: MATH 223 or COSC 330.*

**MATH 411 Abstract Algebra** 3 hrs

An introduction to the theory and concepts of abstract algebra. Topics from group theory: subgroups, cosets, Lagrange's Theorem, homomorphisms. Also selected topics from ring theory and field theory.

*Prereq: MATH 121, MATH 122, and MATH 211; or department permission.*

**MATH 416 Linear Algebra** 3 hrs

Theoretical aspects of linear algebra: vector spaces, linear transformations and matrices, systems of linear equations, diagonalization, inner product spaces.

*Prereq: MATH 121, MATH 122, and MATH 211; or department permission.*



**MATH 418 Applied Linear Algebra** 3 hrs  
Discussion of mathematical algorithms that make wide use of linear algebra methods; their implementation in computer systems and their applications to real life problems. Numerical solution of simultaneous linear equations, the simplex algorithm, linear programming and their applications.

*Prereq: MATH 120, MATH 122; COSC 137 or COSC 138 or COSC 237 or department permission.*

**MATH 419 Advanced Mathematical Modeling** 3 hrs  
A course involving an in-depth study of mathematical models of greater complexity than is possible in MATH 319, 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 problem.

*Prereq: MATH 319.*

**MATH 420 Introduction to Analysis** 3 hrs  
Real numbers, elementary topology of the real line, sequences and series, continuity, uniform continuity, differentiation, integration, sequences and series of functions.

*Prereq: MATH 121 and MATH 211; or department permission.*

**MATH 424 Introduction to Complex Variables** 3 hrs  
Complex numbers, analytic functions, elementary functions and their mapping properties, conformal mapping and applications; contour integrals, Cauchy-Goursat Theorem and its consequences, Taylor and Laurent series, calculus of residues.

*Prereq: MATH 223.*

**MATH 425 Mathematics for Scientists** 3 hrs  
The scientific applications of mathematics. Topics chosen will reflect the interests of the class. Possible areas of study include Fourier series and transforms, complex variables, generalized functions, Laplace transform, Bessel functions, curve fitting, partial differential equations and the calculus of variations. A record of topics studied each semester will be kept in the mathematics files.

*Prereq: MATH 223.*

**MATH 426 Differential Equations II** 3 hrs  
Systems of linear differential equations, transforms, qualitative theory of systems, existence and uniqueness theorems.

*Prereq: MATH 325.*

**MATH 436 Introduction to Numerical Analysis** 3 hrs  
Introduces the theory and application of numeric methods using the digital computer as a tool; finite differences, polynomial approximation, numeric integration, solution of equations and nonlinear systems, numeric solution of differential equations, error analysis.

*Prereq: MATH 121 and MATH 122; and one of: COSC 137, COSC 138, or COSC 237.*

**MATH 448 Differential Geometry with An Introduction to General Relativity** 3 hrs  
Curve and surface theory in three-dimensional space: introduction to special and general relativity. Not open to students with credit in MATH 548 Introduction to Differential Geometry.

*Prereq: MATH 223 and MATH 325*

**MATH 460 Applied Survey Sampling** 3 hrs  
A course in principles of sampling for assessment of data in business, social sciences or natural resource management. Sampling problem, selection of samples, designing questionnaires, estimation of means and variances, ratio, regression and difference methods, simple and stratified random sampling, systematic sampling, cluster sampling, probability proportional to size sampling. A special survey software package is used.

*Prereq: MATH 360 or MATH 370.*

**MATH 461 Linear Regression Analysis** 3 hrs  
Topics include modeling a response as a simple or multiple regression model, validity of assumptions, using models for estimation and prediction, multicollinearity, auto-correlation of error terms, residual analysis, stepwise regression. A statistical software package (SAS) is used extensively.

*Prereq: MATH 122 and MATH 360 or MATH 370.*

**MATH 462 Design and Analysis of Experiments** 3 hrs  
A basic course in principles of experimental designs and analysis: randomized blocks and Latin squares, nested experiments, experimental and sampling errors, fixed and random effects models, factorial and fractional designs. A statistical software package (SAS) is used extensively.

*Prereq: MATH 360 or MATH 370 or equivalent.*

**MATH 471 Probability and Statistics II** 3 hrs  
Nature of statistics; distributions, measure of central value and dispersion; sampling; statistical inference, estimation and tests of hypothesis. Methods of computation, applications and data analysis will be stressed. Nonparametric statistics: sequential tests, analysis of variance.

*Prereq: MATH 223 and MATH 370, or department permission.*

**MATH 472 Problems in Actuarial Studies II** 2 hrs  
Applications of probability and statistics to actuarial science. Particular attention paid to subject matter not covered in the regular mathematics curriculum and to special techniques of problem solving appropriate to actuarial science. (This course can be useful in preparing for the Actuarial Examination, Part II-Probability and Statistics).

*Prereq: MATH 471 (may be taken concurrently); a minimum GPA in mathematics of 3.4 is strongly recommended.*

**MATH 474 Applied Statistics** 3 hrs  
This course stresses the empirical approach to statistics: Monte Carlo methods to generate samples and to model distributions; tests of fit to assumed distributions; medians vs. means and range vs. standard deviations; demonstrations of basic theorems; randomness and independence.

*Prereq: MATH 360 or MATH 370.*

**MATH 477/478/479 Special Topics** 1/2/3 hrs  
A senior-level course in a specific area of mathematics. The area to be studied will be determined by the field of specialization of the staff member teaching the course and the interest of the students enrolled.

*Prereq: Undergraduate grade point average in mathematics 3.0 or above and department permission.*

**MATH 487 Cooperative Education in Mathematics** 3 hrs  
Four to six months of full-time employment at an industrial firm specially chosen to provide practical experience in mathematics. The program consists of two work experiences (MATH 387 and MATH 487) alternating with full-time attendance at the University. Use on mathematics major subject to department permission. Graded on a credit/no credit basis.

*Prereq: Junior or senior majoring in mathematics, admittance to program by application only, MATH 387, department permission.*

**MATH 497/498/499 Independent Study** 1/2/3 hrs  
A report on an approved subject in the field of mathematics under the guidance of the Mathematics Department staff.

*Prereq: Undergraduate grade point average in mathematics 3.0 or above and department permission.*

# Music

Web site: [www.emich.edu/public/music/music.html](http://www.emich.edu/public/music/music.html)

**Gordon McQuere**

**Department Head**

**N101 Alexander**

**734.487.0244**

**E-mail: [gordon.mcquere@emich.edu](mailto:gordon.mcquere@emich.edu)**

**Professors:** Charles N. Amos, Carter J. Eggers, Anne B. Gajda, Joseph Gurt, Oscar M. Henry, Anthony J. Iannaccone, Sylvan S. Kalib, Glenda E. Kirkland, Michael G. McGuire, Gordon McQuere, Dady N. Mehta, Kristy L. Meretta, Louise Rose Patrick, Garik Pedersen, Max E. Plank, J. Whitney Prince, Leonard L. Riccinto, Edward J. Szabo, Mary D. Teal, Diane Winder, Mary Ida Yost, Willard D. Zirk

**Associate Professors:** Ernest M. Brandon, Rachel B. Harley, Donald Hartmann, Kevin Miller, David Pierce, Pamela Ruiter-Feenstra, Marilyn N. Saker, Julie Stone, David O. Woike

**Assistant Professors:** Kimberly Cole, Daniel L. Foster, John R. Smith

The Department of Music serves the state and region by offering undergraduate programs in performance, music education, and music therapy, and master's programs with concentrations in music education, music performance, piano pedagogy, and theory/literature. The Department serves the University by providing the opportunity for education through music to all University students. The Department serves the community by engaging in public performance and in outreach activities.

In fulfilling its mission, the department pursues these goals:

- to cultivate the highest possible level of student achievement in a caring and stimulating learning environment;
- to promote and explore excellence in all Department programs;
- to provide appropriate educational opportunities to students;
- to utilize innovative means of teaching and learning, including new technologies;
- to insure the availability of facilities and equipment commensurate with the mission;
- to seek faculty and staff positions that support the mission;
- to support the scholarly and creative activities of the faculty in an appropriate manner;
- to support the outreach activities of faculty and students in an appropriate manner.

The Music Department is a member of the National Association of Schools of Music.

**Degrees:**

- Bachelor of Arts
- Bachelor of Music
- Bachelor of Music Education
- Bachelor of Music Therapy
- Bachelor of Science

**Programs of Study**

**Majors:**

- Music
- Music education (instrumental and vocal) for K-12 education
- Music performance
- Music therapy

**Minors:**

- General music
- Music education for elementary education

Advising is according to student interest. Advisers are posted each term in the department office, or the advising coordinator may be contacted for further information.

**Advising Coordinators:**

All vocal programs: Ernest Brandon

Instrumental Music Education: Kimberly Cole

Performance, B.A./B.S.: Daniel Foster

Music Therapy: Michael McGuire

Music Minors: J.R. Smith

Enrollment in any music curriculum will be determined by the results of an audition process. All new students should write the department well in advance of their intended registration date to arrange these auditions and examinations. Transfer students may apply at the same time for advanced standing in music.

Address all correspondence to:

Department of Music  
 Eastern Michigan University  
 Ypsilanti, MI 48197  
 734.487.4380

Music fees are charged for private lessons according to the following schedule (1995-96):

**Music majors:** \$60 per semester (maximum) for all instruction.

**Other University students:** \$60 per semester for a one-hour lesson, \$30 per semester for a half-hour lesson.

**Students from public schools and 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 for details.

Student recitals are a participatory expectation of all music students. These performances may take place in studio classes, informal departmental recitals, or in public recitals, where required.

A senior recital to fulfill requirements of graduation must be prepared and approved by an appropriate faculty committee. Ensemble music may be included on the programs. In such event, the recitalist must have a principal solo role in the music performed. Additional approval of senior programs for public performance will rest with the committee's recommendation.

All public recitals are subject to prior review and approval by a faculty committee.

All full-time (minimum 12 hours) music majors are required to attend a quota of music recitals and concerts each semester. Majors should consult with their major-applied instructor or department adviser for specific requirements.

Graduate study leads to the master of arts degree in music. For description of graduate courses, see the graduate catalog.

## Music Performance Major

**ISIS major code: MU01**

The bachelor of music degree curriculum is available for students using voice, guitar, keyboard or an orchestral instrument as the principal performing medium. All general education requirements must be completed, including one approved course in cross-cultural or international studies. (Complete pattern sheet is available in the department.)

**Major in music performance**

<i>Applied music:</i> .....	40
Recommended at four credit hours for eight semesters	
with both a junior and senior recital required .....	32
Music courses chosen according to area of specialization ...	8
<i>Supporting courses:</i> .....	50
MUSC 101 Music Theory I .....	3
MUSC 102 Music Theory II .....	3
MUSC 118 Music Literature I .....	1
MUSC 119 Aural Skills I .....	1
MUSC 128 Music Literature II .....	1
MUSC 129 Aural Skills II .....	1
MUSC 201 Music Theory III .....	3
MUSC 202 Music Theory IV .....	3

MUSC 218 Music Literature III .....	1
MUSC 219 Aural Skills III .....	1
MUSC 228 Music Literature IV .....	1
MUSC 229 Aural Skills IV .....	1
MUSC 301 History of Music .....	3
MUSC 302 History of Music .....	3
MUSC 413 Orchestration .....	2
MUSC 414 Band Arranging .....	2
Secondary instruments .....	4
Ensembles .....	8

Electives (must include at least one semester of conducting): ..... 0-6

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/mus/ugrad/major/musperf.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/mus/ugrad/major/musperf.html).

**Total:** ..... **90 hours**

## Music Therapy Major

**ISIS major code: MU02**

Successful completion of the requirements for the Bachelor of Music Therapy degree makes students eligible to sit for the Certification Examination given by the Certification Board for Music Therapists™.

The bachelor of music therapy degree is awarded on completion of this curriculum. The degree program is approved by the National Association for Music Therapy.

*Music theory and history courses:* ..... 28

MUSC 101 Music Theory I .....	3
MUSC 102 Music Theory II .....	3
MUSC 118 Music Literature I .....	1
MUSC 119 Aural Skills I .....	1
MUSC 128 Music Literature II .....	1
MUSC 129 Aural Skills II .....	1
MUSC 201 Music Theory III .....	3
MUSC 202 Music Theory IV .....	3
MUSC 218 Music Literature III .....	1
MUSC 219 Aural Skills III .....	1
MUSC 228 Music Literature IV .....	1
MUSC 229 Aural Skills IV .....	1
MUSC 301 History of Music .....	3
MUSC 302 History of Music .....	3
MUSC 413 Orchestration .....	2

*Applied music:* ..... 34

MUSC 326 Conducting .....	2
Ensembles .....	4
Applied Music courses at the 100-412 level (principal instrument) .....	14
Secondary instrument classes .....	4
MUSC 211 Basic Brass Class, MUSC 241 Percussion, MUSC 261 Basic String Class: Violin, MUSC 281 Basic Woodwind Class	

Minimal performance skills as determined by the American Music Therapy Association

Some students should be able to meet some of these skill requirements upon entrance or they can be achieved through the courses listed below:

**Voice:** MUSC 232 Voice Class and AVOC 101 or AVOC 111 Applied Music (2)

**Piano:** MUSC 251-MUSC 252-MUSC 253-MUSC 254 Functional Piano and MUSC 305 Keyboard Skills (6)

**Guitar:** MUSC 274 Functional Guitar (2)

*Music therapy courses:* ..... 22

MUSC 103 Introduction to Music Therapy .....	2
MUSC 221 Methods and Materials in Music Therapy .....	2
MUSC 222 Preclinical Training Practicum in Music Therapy I .....	1

MUSC 223 Preclinical Training Practicum in Music Therapy II .....	1
MUSC 303 Music Therapy Principles I .....	4
MUSC 304 Music Therapy Principles II .....	4
MUSC 404 Psychology of Music I .....	2
MUSC 405 Psychology of Music II .....	2
MUSC 424 Preclinical Training Practicum in Music Therapy III .....	1
MUSC 425 Preclinical Training Practicum in Music Therapy IV .....	1
MUSC 488 Clinical Training in Music Therapy .....	2

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/mus/ugrad/major/musther.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/mus/ugrad/major/musther.html).

**Total:** ..... **84 hours**

## Music Major

**ISIS major code: MU03**

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 20-24 credit hours in some other department. Students will not earn a teaching certificate by completing this major.

**Required courses:** ..... **46**

MUSC 101 Music Theory I .....	3
MUSC 102 Music Theory II .....	3
MUSC 118 Music Literature I .....	1
MUSC 119 Aural Skills I .....	1
MUSC 128 Music Literature II .....	1
MUSC 129 Aural Skills II .....	1
MUSC 201 Music Theory III .....	3
MUSC 202 Music Theory IV .....	3
MUSC 218 Music Literature III .....	1
MUSC 219 Aural Skills III .....	1
MUSC 228 Music Literature IV .....	1
MUSC 229 Aural Skills IV .....	1
MUSC 301 History of Music .....	3
MUSC 302 History of Music .....	3
MUSC 413 Orchestration .....	2
MUSC 414 Band Arranging .....	2
Applied Music courses at the 100-300 level (principal instrument) .....	12
MUSC 251-MUSC 252 Functional Piano .....	2
Ensembles .....	2

**Electives in music:** ..... **3**

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/mus/ugrad/major/mus.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/mus/ugrad/major/mus.html).

**Total:** ..... **49 hours**

## Music Education (Instrumental) Major

K-12 Teacher Certification

**ISIS major code: MU31**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in music education, certification code "JX." The certification test covering this field is #39, "Music Education."

**Teaching Major/Minor:** ..... **73**

MUSC 101 Music Theory I .....	3
MUSC 102 Music Theory II .....	3
MUSC 118 Music Literature I .....	1
MUSC 119 Aural Skills I .....	1

MUSC 128 Music Literature II ..... 1  
 MUSC 129 Aural Skills II ..... 1  
 MUSC 201 Music Theory III ..... 3  
 MUSC 202 Music Theory IV ..... 3  
 MUSC 218 Music Literature III ..... 1  
 MUSC 219 Aural Skills III ..... 1  
 MUSC 228 Music Literature IV ..... 1  
 MUSC 229 Aural Skills IV ..... 1  
 MUSC 232 Voice Class ..... 1  
 MUSC 301 History of Music ..... 3  
 MUSC 302 History of Music ..... 3  
 MUSC 413 Orchestration ..... 2  
 MUSC 414 Band Arranging ..... 2  
 MUSC 211 Basic Brass Class ..... 1  
 MUSC 241 Percussion ..... 1  
 MUSC 261 Basic String Class: Violin ..... 1  
 MUSC 281 Basic Woodwind Class ..... 1

Two of:

- MUSC 212 Brass Class (1)
- MUSC 262 String Class: Viola (1)
- MUSC 263 String Class: Cello and Double Bass (1)
- MUSC 282 Woodwind Class (1)
- MUSC 283 Woodwind Class (1)
- MUSC 251-MUSC 254 Functional Piano (4)

Applied Music courses at the 100-400 level (principal instrument) ..... 16  
 MUSC 326 Conducting ..... 2  
 MUSC 327 Instrumental Conducting ..... 2  
 Ensembles ..... 8  
 Electives ..... 4

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/mus/ugrad/major/medi\\_tk12.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/mus/ugrad/major/medi_tk12.html).

**Music Education (Vocal) Major**

**K-12 Teacher Certification**

**ISIS major code: MU32**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in music education, certification code "JX." The certification test covering this field is #39, "Music Education."

**Teaching Major: ..... 68**

MUSC 101 Music Theory I ..... 3  
 MUSC 102 Music Theory II ..... 3  
 MUSC 118 Music Literature I ..... 1  
 MUSC 119 Aural Skills I ..... 1  
 MUSC 128 Music Literature II ..... 1  
 MUSC 129 Aural Skills II ..... 1  
 MUSC 201 Music Theory III ..... 3  
 MUSC 202 Music Theory IV ..... 3  
 MUSC 218 Music Literature III ..... 1  
 MUSC 219 Aural Skills III ..... 1  
 MUSC 228 Music Literature IV ..... 1  
 MUSC 229 Aural Skills IV ..... 1  
 MUSC 301 History of Music ..... 3  
 MUSC 302 History of Music ..... 3  
 MUSC 413 Orchestration ..... 2  
 MUSC 274 Functional Guitar ..... 2

Two of:

- MUSC 212 Brass Class (1)
- MUSC 241 Percussion (1)
- MUSC 261 Basic String Class: Violin (1)
- MUSC 281 Basic Woodwind Class (1)

Applied Music courses at the 100-400 level (principal instrument) ..... 16.  
 One of:  
 MUSC 251-MUSC 252-MUSC 253-MUSC 254 and APNO/AORG 111-113 Applied Music (if keyboard is secondary instrument) (0-6)  
 AVOC 101-113 Applied Music in Voice (if secondary instrument) (0-6)  
 MUSC 326 Conducting ..... 2  
 MUSC 328 Choral Conducting ..... 2  
 Ensembles ..... 8  
 Electives ..... 2

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/mus/ugrad/major/medv\\_tk12.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/mus/ugrad/major/medv_tk12.html).

**General Music Minor**

**ISIS minor code: MU01**

Students seeking admission to the general minor in music must complete an application at the Music Department office and take placement tests in applied music and basic musicianship. Each must work out a course of study with a designated music adviser.

**Total: ..... 20 hours**

**Elementary Music Education Minor**

**Elementary and Special Education-Elementary Teacher Certification**

**ISIS minor code: MU32**

Students seeking admission to the minor in elementary music education must complete an application at the Music Department office and take placement tests in applied music and basic musicianship. Each must work out a course of study with a designated music adviser.

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in music education, certification code "JX." The certification test covering this field is #39, "Music Education."

Three or four credit hours of student teaching also are required. The methods course must be taken in the area of teaching desired. All courses in the minor must be co3 Music Courses

Students who do not qualify by audition for admission to a curriculum in music may, at the discretion of the department, be assigned preparatory work until ready for University-applied music study. It should be understood that delayed admission as a departmental major may extend the time normally required to satisfy graduation requirements.

Transfer students may be granted credit for applied music study accomplished at another institution or with a recognized private teacher. Eligibility for credit will be determined by audition. A course of study designed to satisfy Music Department graduation requirements will be recommended at that time.

At the time of admission to a music curriculum, students with piano as a secondary instrument must demonstrate the required level of proficiency for graduation in their chosen curriculum, or elect piano every semester until the required proficiency is attained.

Study is available on the following instruments:

- Bassoon (ABSN)
- Cello (AVCL)
- Clarinet (ACLA)
- Euphonium (AEPH)
- Flute (ABSN)
- Guitar\* (AGTR)
- Harp (AHRP)
- Harpichord (AHPS)
- Oboe (AOBO)
- Organ (AORG)



Piano (APNO)  
 Percussion (APER)  
 Saxophone (ASAX)  
 String Bass (ADBS)  
 Trumpet (ATPT)  
 Tuba (ATUB)  
 Viola (AVLA)  
 Violin (AVLN)

\*Guitar does not qualify as a principal instrument in the bachelor of music education curriculum. It is acceptable for bachelor of arts, bachelor of science, or bachelor of music degree with major in music.

### Principal Instruments

The bachelor's degrees require varying credit hours of work on the principal applied music instrument as indicated in the course requirements of the specific curriculum and major.

Students are admitted to the 100 series level at different degrees of competency; therefore some students will require more time to achieve the proficiency needed for admission to the 300 series level. Permission to move to 300 series level may be given by the faculty jury with the permission of the teacher.

**Applied Music Course AMUS 105 or 106** 2 hrs  
 Probationary applied music. For the student who requires additional preparation in his or her principal instrument before entering regular freshman level work. Cannot apply toward graduation requirements in any music major curriculum.

**Applied Music Course AMUS 101/102/103/104** 1 hr  
 For elective study. May be repeated for credit.

**Applied Music Course**  
**AMUS 111/113/211/213/311/313/411/413** 1 hr  
 For music minors. May be repeated for credit.

**Applied Music Course AMUS 112/114/212/214** 2 hrs  
 Lower-level work for music majors (BA, BS, BMEI, BMEV, BMT) only. May be repeated for credit.

**Applied Music Course AMUS 140/144/240/244** 4 hrs  
 Lower-level work for music majors (BM) only. May be repeated for credit.

**Applied Music Course AMUS 312/314/412/414** 2 hrs  
 Upper-level work for music majors (BA, BS, BMEI, BMEV, BMT) only. May be repeated for credit.

**Applied Music Course AMUS 340/344/440/444** 4 hrs  
 Upper-level work for music majors (BM) only. May be repeated for credit.

### Music Courses

**MUSC 100 Introduction to Music Theory** 3 hrs  
 Designed for the nonmusic major. A preparatory course for MUSC 101 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.

**MUSC 101 Music Theory I** 3 hrs  
 Integrated theory course dealing with perception, writing, analysis and performance of basic musical materials; stylistic comprehension of music of all periods. *For music majors and minors. Taken concurrently with MUSC 118 and MUSC 119.*  
*Prereq: Department permission.*

**MUSC 102 Music Theory II** 3 hrs  
 Continuation of MUSC 101. *For music majors and minors. Taken concurrently with MUSC 128 and MUSC 129.*  
*Prereq: MUSC 101, MUSC 118 and MUSC 119.*

**MUSC 103 Introduction to Music Therapy** 2 hrs  
 An orientation to music therapy. Introductory survey of the various impaired and disabled populations served, current career opportunities, and

exploration of interventions utilized by music therapists to achieve specific therapeutic goals. Observation of registered music therapists in hospital, clinical and school settings is required.  
*Prereq: Admission to music therapy program.*

**MUSC 104 Elements of Music** 2 hrs  
 Singing, music reading, and theory experience in the elements of music for the elementary classroom teacher. Concepts of rhythm and tonality. Lecture: two hours per week. Laboratory: one hour per week.  
*Prereq: Elementary education or special education major.*

**MUSC 106 Introduction to the Performing Arts** 3 hrs  
 A survey of the arts of dance, theatre and music, developing an understanding and appreciation of representative works in the three fields; the place of these arts in contemporary society and their contribution to a richer life. Attendance required at specified on-campus performances.  
*Nonmusic majors only.*

**MUSC 107 Music Appreciation** 2 hrs  
 Guides the student in listening to and understanding various types, forms and styles of instrumental and vocal music of the world. Representative works of all periods and cultures, including contemporary developments, will be studied. Attendance at some concerts and recitals required.  
*Nonmusic majors only.*

**MUSC 118 Music Literature I** 1 hr  
 Stylistic analysis and aural presentation of select musical masterworks in the history of western music, from the medieval period through the classic period. Objectives of the course parallel and relate to those of MUSC 101. *Taken concurrently with MUSC 101 and MUSC 119.*  
*Prereq: Department permission.*

**MUSC 119 Aural Skills I** 1 hr  
 Development of fundamental sight-singing techniques as well as skills in notating performed melodic and harmonic musical examples. Objectives of the course parallel those of MUSC 101. *Taken concurrently with MUSC 101 and MUSC 118.*  
*Prereq: Department permission.*

**MUSC 128 Music Literature II** 1 hr  
 A continuation of MUSC 118. 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 MUSC 102. *For music majors and minors. Taken concurrently with MUSC 102 and MUSC 129.*  
*Prereq: MUSC 101, MUSC 118 and MUSC 119.*

**MUSC 129 Aural Skills II** 1 hr  
 A continuation of MUSC 119. 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 MUSC 102. *For music majors and minors. Taken concurrently with MUSC 102 and MUSC 128.*  
*Prereq: MUSC 101, MUSC 118 and MUSC 119.*

**MUSC 131 University Choir** 1 hr  
 An ensemble of advanced singers. Open to all students in the University.  
*Prereq: Department permission.*

**MUSC 134 University Women's Chorus** 1 hr  
 Open to all women students.  
*Prereq: Department permission.*

**MUSC 135 University Men's Chorus** 1 hr  
 Open to all men students.  
*Prereq: Department permission.*

**MUSC 136 Chamber Choir** 1 hr  
 Chamber music for mixed voices. Open to all students.  
*Prereq: Department permission.*

- MUSC 149 Athletic Band** 1 hr  
The Athletic Band rehearses music and performs for a schedule (determined by the instructor) of the University's men's and women's basketball and volleyball home games. The Athletic Band also may perform for postseason basketball competition. *MUSC 149 may not serve to fulfill Group V general education requirement.*  
*Prereq: Department permission.*
- MUSC 151 Class Piano** 2 hrs  
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.*
- MUSC 152 Class Piano** 2 hrs  
Continuation of MUSC 151 with emphasis on the functional aspects of piano playing and elementary piano literature. For students not specializing in music and with not more than one year of previous keyboard experience.  
*Prereq: MUSC 151 or department permission.*
- MUSC 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- MUSC 201 Music Theory III** 3 hrs  
Continuation of MUSC 102 with more emphasis on harmonic, melodic, compositional and structural techniques of 16th through 20th centuries. *For music majors and minors. Taken concurrently with MUSC 218 and MUSC 219.*  
*Prereq: MUSC 102, MUSC 128 and MUSC 129.*
- MUSC 202 Music Theory IV** 3 hrs  
Continuation of MUSC 201. *For music majors and minors. Taken concurrently with MUSC 228 and MUSC 229.*  
*Prereq: MUSC 201, MUSC 218 and MUSC 219.*
- MUSC 211 Basic Brass Class** 1 hr  
The teaching and playing of trumpet and trombone. *Majors and minors only.*
- MUSC 212 Brass Class** 1 hr  
The teaching and playing of French horn, euphonium and tuba. *Majors and minors only.*
- MUSC 218 Music Literature III** 1 hr  
Stylistic analysis and aural presentation of select musical masterworks in the history of western music from the medieval period through the classic period. Objectives of the course parallel and relate to those of MUSC 201. *For music majors and minors. Taken concurrently with MUSC 201 and MUSC 219.*  
*Prereq: MUSC 102, MUSC 128 and MUSC 129.*
- MUSC 219 Aural Skills III** 1 hr  
A continuation of MUSC 129. 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 MUSC 201. *For music majors and minors. Taken concurrently with MUSC 201 and MUSC 218.*  
*Prereq: MUSC 102, MUSC 128 and MUSC 129.*
- MUSC 221 Methods and Materials in Music Therapy** 2 hrs  
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.  
*Prereq: MUSC 102, MUSC 103.*
- MUSC 222 Preclinical Training Practicum in Music Therapy I** 1 hr  
Introductory fieldwork experience in music therapy. Observation and documentation of music therapy sessions in clinical or educational settings.  
*Prereq: MUSC 102, MUSC 103.*
- MUSC 223 Preclinical Training Practicum in Music Therapy II** 1 hr  
Continuation of MUSC 222. Leadership or co-leadership of music therapy sessions.  
*Prereq: MUSC 222.*
- MUSC 224 Recreational Music** 2 hrs  
For recreation majors. Specific activities, techniques and resources for directing recreational music programs.
- MUSC 228 Music Literature IV** 1 hr  
A continuation of MUSC 218. 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 MUSC 202. *For music majors and minors. Taken concurrently with MUSC 202 and MUSC 229.*  
*Prereq: MUSC 201, MUSC 218 and MUSC 219.*
- MUSC 229 Aural Skills IV** 1 hr  
A continuation of MUSC 219. 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 MUSC 202. *For music majors and minors. Taken concurrently with MUSC 202 and MUSC 228.*  
*Prereq: MUSC 201, MUSC 218 and MUSC 219.*
- MUSC 232 Voice Class** 1 hr  
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.*  
*Prereq: The ability to read music in the clef appropriate to student's voice classification.*
- MUSC 235 Diction in Singing** 2 hrs  
The physiological descriptions and laboratory practice of diction as used in singing English, French, German, Italian and Latin.
- MUSC 241 Percussion** 1 hr  
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.*
- MUSC 243 Percussion Ensemble** 1 hr  
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.  
*Prereq: Percussion major or minor or department permission.*
- MUSC 244 Jazz Ensemble** 1 hr  
Performance class dealing with the elements of jazz arrangement, improvisation, and ensemble techniques with special emphasis on the function of jazz in music education.  
*Prereq: Department permission.*
- MUSC 246 String Ensemble** 1 hr  
Chamber music for strings.  
*Prereq: Department permission.*
- MUSC 247 Woodwind Ensemble** 1 hr  
Chamber music for woodwinds.  
*Prereq: Department permission.*
- MUSC 248 Orchestra** 1 hr  
Open to all students in the University.  
*Prereq: Department permission.*
- MUSC 249 Band** 1 hr  
MUSC 249 includes Concert Winds, Symphonic Band and Marching Band. Open to all students of the University. Enrollment in MUSC 249 requires attendance for the entire semester. Students electing MUSC 249 may also elect PEGN 140 for one credit.

- MUSC 251 Functional Piano** 1 hr  
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  
*Prereq: Majors or minors only.*
- MUSC 252 Functional Piano** 1 hr  
Continuation of MUSC 251.  
*Prereq: MUSC 251 or equivalent. Majors or minors only.*
- MUSC 253 Functional Piano** 1 hr  
Continuation of MUSC 252. Stresses keyboard harmony, accompaniment, sight-reading, piano literature and technique.  
*Prereq: MUSC 252. Majors or minors only.*
- MUSC 254 Functional Piano** 1 hr  
Continuation of MUSC 253. Additional accompaniment experience, keyboard harmony, improvisation, piano literature and techniques. Any break in the continuity of Functional Piano courses will require an audition before resumption of study.  
*Prereq: MUSC 253 or equivalent. Majors or minors only.*
- MUSC 261 Basic String Class: Violin** 1 hr  
The teaching and playing of the violin from a pedagogical approach. Designed primarily for music education and music therapy majors. Small and large group instruction and current methods including rote and Suzuki approaches. *Majors and minors only.*
- MUSC 262 String Class: Viola** 1 hr  
Continuation of MUSC 261; teaching and playing of viola. *Majors and minors only.*  
*Prereq: MUSC 261.*
- MUSC 263 String Class: Cello and Double Bass** 1 hr  
The teaching and playing of cello and double bass. *Majors and minors only.*
- MUSC 271 Beginning Classical Guitar** 2 hrs  
Group instruction in classical guitar through the study of standard beginning methods and repertoire.  
*Prereq: Department permission.*
- MUSC 272 Intermediate Classical Guitar** 2 hrs  
Group instruction in classical guitar through the study of standard intermediate methods and repertoire.  
*Prereq: MUSC 271.*
- MUSC 274 Functional Guitar** 2 hrs  
Functional skills for playing guitar. Students will learn guitar notation, chords, and various accompaniment styles. Intended primarily for music education majors, music education minors and music therapy majors.  
*Prereq: Department permission.*
- MUSC 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- MUSC 281 Basic Woodwind Class** 1 hr  
The teaching and playing of clarinet. *Majors and minors only.*
- MUSC 282 Woodwind Class** 1 hr  
The teaching and playing of flute and saxophone. *Majors and minors only.*
- MUSC 283 Woodwind Class** 1 hr  
The teaching and playing of oboe and bassoon. *Majors and minors only.*
- MUSC 301 History of Music** 3 hrs  
A chronological study of western music in its historical and cultural setting. Recognition of idioms, changing sounds, styles and forms of music in medieval, Renaissance and Baroque periods, approximately through 1750. Students survey the history of their instruments.  
*Prereq: MUSC 202.*
- MUSC 302 History of Music** 3 hrs  
A continued chronological study of western music in its historical and cultural setting, beginning about 1750. Emphasis similar to MUSC 301 but with a strong concentration in contemporary music. Covers classical, Romantic and present periods.  
*Prereq: MUSC 301.*
- MUSC 303 Music Therapy Principles I** 4 hrs  
Examination of the research literature dealing specifically with the influence of music on behavior, including neurophysiological effects. In-depth study of diagnostic categories and systematic application of music therapy treatment to people within these categories. Laboratory experience is required in which music therapy treatment is provided to individuals with various dysfunctions.  
*Prereq: Admission to music therapy program, PSY 101/PSY 102, MUSC 221, MUSC 222, and MUSC 223.*
- MUSC 304 Music Therapy Principles II** 4 hrs  
Continuation of MUSC 303. Exploration of professional skills needed by a music therapist in a variety of clinical settings. Includes in-depth examination of music therapy literature, various psychological theories and their relationships to music therapy. Laboratory experience is required.  
*Prereq: MUSC 303.*
- MUSC 305 Keyboard Skills** 2 hrs  
Sight reading, harmonization, transposition, improvisation and score reading.  
*Prereq: MUSC 102, MUSC 254. Majors or minors only.*
- MUSC 317 Music Composition** 2 hrs  
Original writing and analysis of music, beginning with the smaller forms. May be repeated for credit.  
*Prereq: MUSC 202 and department permission.*
- MUSC 320 Elementary Music Education** 2 hrs  
A study of materials and teaching techniques in relation to the interests, characteristics, and needs of children in elementary and special education classrooms. *Non-majors only.*  
*Prereq: MUSC 104 and junior standing.*
- MUSC 326 Conducting** 2 hrs  
Fundamentals of baton technique, score reading, and interpretation of instrumental and vocal music.  
*Prereq: Junior standing. Majors or minors only.*
- MUSC 327 Instrumental Conducting** 2 hrs  
A practical course in instrumental conducting; score preparation, baton technique, study of technical and musical problems in conducting traditional and contemporary works.  
*Prereq: MUSC 326.*
- MUSC 328 Choral Conducting** 2 hrs  
A practical course in choral conducting; baton technique, score analysis, study of technical and musical problems in conducting traditional and contemporary works.  
*Prereq: MUSC 326.*
- MUSC 330 Music Education in the Elementary School** 3 hrs  
Organization, planning and teaching of elementary music. Examination, evaluation and preparation of materials. Music curriculum based on child growth and development principles. Concurrent placement in schools

for observation and prestudent teaching experience. *Open to music education majors and minors only.*

*Prereq: Junior standing. Completion of MUSC 254 and Applied Music Course 114/115/116, or Applied Music Course 105/106 and Applied Music Course 134/135/136; MUSC 202; Coreq: MUSC 326.*

**MUSC 331 Music Education in the Secondary School 3 hrs**

Care and treatment of adolescent voices; classification and training of voices; song interpretation; organization and administration of all types of choral ensembles; theory, history and literature of music classes; evaluation of numerous materials suitable for choral organizations and other classes in the secondary school; psychology and philosophy of music education. *Open to music education majors only.*

*Prereq: Junior standing; satisfactory completion of MUSC 330. Proficiency in piano and voice; Coreq: MUSC 328.*

**MUSC 332 Instrumental Music in the Public Schools 3 hrs**

Designed to prepare students to teach instrumental music; covers organization of beginning classes, special problems of strings, selection of suitable materials, techniques of teaching, public relations and other areas of interest in the development of orchestras and bands. Special emphasis placed on music for grades four through nine. *Open only to instrumental music education majors and minors. No students on academic probation.*

*Prereq: Junior standing.*

**MUSC 333 Orchestral Methods 3 hrs**

Designed to assist students in their preparation as orchestra directors; special problems relevant to the string orchestra, string ensembles, and the string curriculum in the secondary schools. *Open only to instrumental music majors. No students on academic probation.*

*Prereq: MUSC 332 and junior standing.*

**MUSC 334 Band Methods 3 hrs**

Designed to assist students in their preparation as band directors in secondary schools; charting and drills for marching band; rehearsal procedures and selection of suitable materials for the concert band. *Open only to instrumental music education majors. No students on academic probation.*

*Prereq: MUSC 332 and junior standing.*

**MUSC 341 Contrapuntal Techniques 2 hrs**

Writing in polyphonic forms with concomitant analysis.

*Prereq: MUSC 202.*

**MUSC 351 Collegium Musicum 1 hr**

Various ensembles of soloists—instrumental, vocal and mixed. Opportunity to perform old and new music infrequently heard. Open to all qualified students.

**MUSC 361 Music for Piano Instruction 2 hrs**

Study of method books and materials suitable for use with beginning- and intermediate-level students.

*Prereq: Junior standing.*

**MUSC 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**MUSC 387 Cooperative Education in Music 3 hrs**

A cooperative work experience in the field of music.

*Prereq: Department permission.*

**MUSC 401 Music Theory-Literature V 2 hrs**

Integration of previous studies in theory-literature and music history; continued study and analysis of music from all periods; original, creative composition with special emphasis on contemporary style.

*Prereq: MUSC 202.*

**MUSC 402 Music Theory-Literature VI 2 hrs**

Continuation of MUSC 401.

*Prereq: MUSC 401.*

**MUSC 404 Psychology of Music I 2 hrs**

Study of the functional uses, psychological attributes, aesthetic effects and psycho-acoustical properties of music. Introduction to statistical analysis and evaluation of research in the field; examination of the continued need for investigation and documentation.

*Prereq: MUSC 304.*

**MUSC 405 Psychology of Music II 2 hrs**

Continuation of MUSC 404. In-depth exploration of empirical research in the field, with opportunities to conduct individual investigation of select topics.

*Prereq: MUSC 404.*

**MUSC 413 Orchestration 2 hrs**

Practical work in setting compositions for full orchestra and various other instrumental ensembles.

*Prereq: MUSC 202.*

**MUSC 414 Band Arranging 2 hrs**

Arranging for band; transcription from other media; original composition; analysis of representative work.

*Prereq: Senior standing.*

**MUSC 424 Preclinical Training Practicum in Music Therapy III 1 hr**

Fieldwork experience in clinical or educational setting under supervision of a registered music therapist. *Taken concurrently with MUSC 404.*

*Prereq: Senior standing in music therapy program; MUSC 304.*

**MUSC 425 Preclinical Training Practicum in Music Therapy IV 1 hr**

Fieldwork experience continued. *Taken concurrently with MUSC 405.*

*Prereq: MUSC 424.*

**MUSC 448/449 Opera Workshop 1/2 hrs**

A laboratory-performance course that deals with performance of opera scenes and, when feasible, complete works. Musical, technical and dramatic aspects of production.

*Prereq: Department permission.*

**MUSC 475 Chamber Music Performance 2 hrs**

Study and performance of literature for small chamber groups. May be repeated for credit.

*Prereq: Department permission.*

**MUSC 477/478/479 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**MUSC 488 Clinical Training in Music Therapy 2 hrs**

Six months of supervised training in a hospital, clinical or educational setting affiliated with the National Association for Music Therapy.

*Prereq: Senior standing, completion of all other music therapy curriculum requirements, and successful completion of guitar, keyboard and voice competency examinations.*

**MUSC 490/492 Honors Course in Music 2/4 hrs**

Provides superior students with the opportunity for an intensive program of independent study, original composition, performance or research.

*Prereq: Senior standing, cumulative average of 3.5 in music, 3.2 in general studies. Regulations governing honors courses must be followed (see page 30).*



# Physics and Astronomy

Web site: [www.physics.emich.edu/index.htm](http://www.physics.emich.edu/index.htm)

**Dan Trochet**

**Department Head**

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**734.487.4144**

**E-mail: dan.trochet@emich.edu**

**Professors:** Diane A. Jacobs, Alexandria Oakes, James C. Porter, Natthi L. Sharma, James P. Sheerin, J. Marshall Thomsen, Dan Trochet, Jon K. Wooley, Bonnie Wylo

**Associate Professors:** Ernest R. Behringer, David Reid, Weidian C. Shen

**Assistant Professors:** James J. Carroll III

The Physics and Astronomy Department offers majors in physics, physics research and engineering physics. Minors are offered in astronomy, general science and physics. The department also administers interdisciplinary offerings in applied science and general science. 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.

## Degrees:

Bachelor of Arts and Bachelor of Science

## Programs of Study

### Curriculum:

Applied science

### Group majors:

General science

General science for secondary education

### Majors:

Engineering physics

Geophysics

Physics research

Physics

Physics for secondary education

### Minors:

Astronomy

General science

General science for secondary, K-12, and special education-secondary

Physics

Physics for secondary, K-12, and special education-secondary

Advising is assigned according to the indicated field of study.

## Advising coordinators:

Applied science curriculum: Dan Trochet

Astronomy minor: David Reid, Jon Wooley

Engineering physics: Alexandria Oakes, Weidian Shen

Physics major: Diane Jacobs, David Reid, Marshall Thomsen

General science major/minor: Jon Wooley, Bonnie Wylo

Geophysics: James Sheerin

Physics-research major: Natthi Sharma, James Sheerin

Graduate study leads to the master's degree in physics research, physics education or general science. These programs are described in the graduate catalog.

## Group Major/Minor in General Science

**ISIS major code: PH01**

This 56-credit-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-credit-hour cognate minor in one of the areas listed above and a 36-hour group major composed of courses from the other four areas.

## Cognate minor in one of the following five science areas: ..... 20-21

Biology ..... 20

Chemistry ..... 20

Earth science ..... 21

Mathematics ..... 20

Physics ..... 20

Select courses for your minor in consultation with an adviser in the appropriate department.

## Group major: ..... 36

With a **biology minor**, take the following for the group major:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) ..... 4

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ... 4

#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) ..... 4

GESC 324 Weather ..... 3

MATH 105 College Algebra ..... 3

MATH 107 Plane Trigonometry ..... 2

#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) ..... 4

PHY 222 Electricity and Light ..... 4

Approved electives in chemistry, earth science, mathematics and physics ..... 8

With a **chemistry minor**, take the following for the group major:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) ..... 4

#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) ..... 4

BIOL 224 Principles of Conservation ..... 4

#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) ..... 4

GESC 324 Weather ..... 3

MATH 105 College Algebra ..... 3

MATH 107 Plane Trigonometry ..... 2

#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) ..... 4

PHY 222 Electricity and Light ..... 4

Approved electives in biology, earth science, mathematics and physics ..... 4

With an **earth science minor**, take the following for the group major:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) ..... 4

#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) ..... 4

BIOL 224 Principles of Conservation ..... 4

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ... 4

MATH 105 College Algebra ..... 3

MATH 107 Plane Trigonometry ..... 2

#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) ..... 4

PHY 222 Electricity and Light ..... 4

Approved electives in biology, chemistry, mathematics and physics ..... 7

With a **mathematics minor**, take the following for the group major:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) ..... 4

#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) ..... 4

BIOL 224 Principles of Conservation ..... 4

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ... 4

#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
GESC 324 Weather .....	3
#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) .....	4
PHY 222 Electricity and Light .....	4
Approved electives in biology, chemistry, earth science and physics .....	5

With a **physics minor**, take the following for the group major:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) .....	4
#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) .....	4
BIOL 224 Principles of Conservation .....	4
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
GESC 324 Weather .....	3
#MATH 120 Calculus I (satisfies general education requirement I.4) .....	4
#MATH 121 Calculus II (satisfies general education requirement I.4) .....	4
Approved electives in biology, chemistry, mathematics and mathematics .....	5

**Approved electives:**

ASTR 204 Astronomical Investigations; BIOL 205 Field Biology; BIOL 207 Elements of Ecology; #BOTN 221 General Botany (satisfies general education requirement II.2 or II.3); #ZOO 222 General Zoology (satisfies general education requirement II.2 or II.3); CHEM 123 General Chemistry II; CHEM 124 General Chemistry II Laboratory; CHEM 270 Organic Chemistry; CHEM 271 Organic Chemistry Laboratory; #COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5); GESC 114 National Parks and Monuments; GESC 309 Plate Tectonics; GEOL 228 Mineralogy; GESC 320 The Oceans; GEOL 229 Rocks of Michigan; #MATH 120 Calculus I (satisfies general education requirement I.4); #MATH 121 Calculus II (satisfies general education requirement I.4); #MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4); MATH 223 Multivariable Calculus; PHY 330 Intermediate Mechanics I; PHY 370 Introduction to Modern Physics; PHY 372 Modern Physics Laboratory. This list is not complete; consult with the general science adviser for other possible courses.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/phy/ugrad/major/gensci.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/phy/ugrad/major/gensci.html).

**Total (with cognate minor):** ..... **56-57 hours**

*#Advising note:* 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.

**Physics Major**

**ISIS major code: PH03**

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.

*Required physics courses:* ..... **20**

#PHY 223 Mechanics, Sound, and Heat (also satisfies general education requirement II.1 or II.3) .....	5
PHY 224 Electricity and Light .....	5

PHY 330 Intermediate Mechanics I .....	3
PHY 350 Electricity and Magnetism I .....	3
PHY 370 Introduction to Modern Physics .....	3
PHY 406 Ethical Issues in Physics .....	1
<i>Restricted electives:</i> .....	<b>3-12</b>

Choose three of the following laboratory courses:

- PHY 332 Mechanics Laboratory, PHY 372 Modern Physics Laboratory, PHY 436 Vibration and Sound, PHY 442 Optics Laboratory, PHY 456 Electronics for Scientists, PHY 458 Microcomputer and Digital Electronics, PHY 471 Nuclear Physics

*General electives in physics and astronomy:* ..... **0-9**

No physics or astronomy courses numbered less than 300 are to be used as electives on this major. PHY 325 is not to be used as an elective on this major.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/phy/ugrad/major/phy.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/phy/ugrad/major/phy.html).

**Total:** ..... **32 hours**

*#Advising note:* 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.

**Applied Science Major**

**ISIS major code: PH04**

This program is designed for students who plan to enter occupations in which a substantial background in mathematics and science is required. It calls for concentrations of 16-18 credit hours in each of two departments (chemistry, mathematics or physics) and 36 credit hours in the third. To qualify for a bachelor of arts degree, the student must complete one year of college-level credit in a foreign language. In addition to meeting the general education requirements, all students on this curriculum must complete all other courses specified. No minor is required.

**Chemistry courses:** ..... **15**

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
CHEM 241 Materials Science .....	3
CHEM 281 Quantitative Analysis .....	4

**Mathematics and computer science courses:** ..... **17**

#MATH 120 Calculus I (satisfies general education requirement I.4) .....	4
#MATH 121 Calculus II (satisfies general education requirement I.4) .....	4
#MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) .....	2
MATH 223 Multivariable Calculus .....	4
#COSC 237 Computer Programming and Numeric Methods (satisfies general education requirement I.5) .....	3

**Physics courses:** ..... **18**

#PHY 223 Mechanics, Sound, and Heat (also satisfies general education requirement II.3) .....	5
PHY 224 Electricity and Light .....	5
PHY 370 Introduction to Modern Physics .....	3
PHY 372 Modern Physics Laboratory .....	1
PHY 456 Electronics for Scientists .....	4

**Engineering courses:** ..... **6**

CADM 122 Engineering Graphics I .....	3
CADM 223 Engineering Graphics II .....	3

**Restricted electives:** ..... **18-20**

Choose 18-20 credits from one of the following groups to complete the major: chemistry, mathematics or physics.

**Chemistry:** CHEM 371 Organic Chemistry I, CHEM 372 Organic Chemistry II, CHEM 373 Organic Chemistry Laboratory, and electives chosen in consultation with advising coordinator in applied science

**Mathematics:** MATH 325 Differential Equations, MATH 425 Mathematics for Scientists, and electives chosen in consultation with advising coordinator in applied science

**Physics:** PHY 330 Intermediate Mechanics I, PHY 452 Electrical Measurements, PHY 471 Nuclear Physics, one of the following laboratory courses (PHY 332 Mechanics Laboratory or PHY 442 Optics Laboratory), and electives at the 300 or 400 level, chosen in consultation with the advising coordinator in applied science

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/phy/ugrad/major/appld.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/phy/ugrad/major/appld.html).

**Total:** ..... 68 hours

*#Advising note:* 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.

### Engineering Physics Major

**ISIS major code: PH0301**

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.

**Required physics courses:** ..... 28

- #PHY 223 Mechanics, Sound, and Heat (also satisfies general education requirement II.3) ..... 5
- PHY 224 Electricity and Light ..... 5
- PHY 360 Heat and Thermodynamics ..... 3
- PHY 370 Introduction to Modern Physics ..... 3
- PHY 372 Modern Physics Laboratory ..... 1
- PHY 440 Optics ..... 3
- PHY 442 Optics Laboratory ..... 1
- PHY 456 Electronics for Scientists ..... 4
- PHY 458 Microcomputer and Digital Electronics ..... 3

**Physics electives:** ..... 6

- Choose six credits from the following:
- PHY 332 Mechanics Laboratory, PHY 406 Ethical Issues in Physics, PHY 431 Intermediate Mechanics II, PHY 436 Vibration and Sound, PHY 471 Nuclear Physics, PHY 497/498 Independent Study—Physics (with prior department approval)

**Required engineering mechanics courses:** ..... 14

- PHY 229 Strength and Elasticity of Materials ..... 4
- PHY 230 Engineering Dynamics ..... 4
- PHY 420 Engineering Physics Design ..... 3
- PHY 485 Fluid Dynamics ..... 3

**Required chemistry courses:** ..... 8

- #CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ... 4
- CHEM 241 Materials Science ..... 3
- CHEM 242 Materials Science Laboratory ..... 1

**Required mathematics courses:** ..... 21

- #MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4
- #MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4
- #MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) ..... 3
- MATH 223 Multivariable Calculus ..... 4

- #COSC 237 Computer Programming and Numeric Methods (satisfies general education requirement I.5) ..... 3
- MATH 325 Differential Equations ..... 3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/phy/ugrad/major/engin.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/phy/ugrad/major/engin.html).

**Total:** ..... 77 hours

*#Advising note:* 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.

### Geophysics Major

**ISIS major code: PH05**

The geophysics major involves concentrations in physics, geology and mathematics. This major is designed to bring together the traditional sciences of physics and geology into a program that will prepare students for employment in the modern-day geoscience area. This major also will prepare the student for graduate work in either geophysics, geology or physics. No minor is required.

**Required physics and geology courses:** ..... 61-63

- #PHY 223 Mechanics, Sound, and Heat (also satisfies general education requirement II.1 or II.3) ..... 5
- PHY 224 Electricity and Light ..... 5
- PHY 229 Strength and Elasticity of Materials ..... 4
- PHY 330 Intermediate Mechanics I ..... 3
- PHY 350 Electricity and Magnetism I ..... 3
- PHY 481 Mathematical Physics ..... 3
- #GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) ..... 4
- GEOL 228 Mineralogy ..... 4
- GEOL 161 Historical Geology ..... 4
- GESC 309 Plate Tectonics ..... 3
- GEOL 326 Structural Geology ..... 4
- GEOL 329 Igneous and Metamorphic Petrology ..... 4
- GEOL 330 Sedimentology and Stratigraphy ..... 4
- GEOL 355 Field Geology I ..... 2
- GEOL 356 Field Geology II ..... 3

Select two of the following:

- PHY 370 Introduction to Modern Physics (3)
- PHY 436 Vibration and Sound (4)
- PHY 452 Electrical Measurements (4)
- PHY 456 Electronics for Scientists (4)
- PHY 485 Fluid Dynamics (3)

**Required mathematics courses:** ..... 21

- #MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4
- #MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4
- #MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) ..... 3
- #COSC 237 Computer Programming and Numeric Methods (satisfies general education requirement I.5) ..... 3
- MATH 223 Multivariable Calculus ..... 4
- MATH 325 Differential Equations ..... 3

**Required chemistry courses:** ..... 8

- #CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ... 4
- CHEM 123 General Chemistry II ..... 3
- CHEM 124 General Chemistry II Laboratory ..... 1

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/phy/ugrad/major/geophy.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/phy/ugrad/major/geophy.html).

**Total:** ..... 90-92 hours

*#Advising note:* 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.

## Physics Research Major

**ISIS major code: PH06**

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.

**Total physics and astronomy courses: 49**

*Required physics courses: 36*

#PHY 223 Mechanics, Sound, and Heat (also satisfies general education requirement II.1 or II.3)	5
PHY 224 Electricity and Light	5
PHY 330 Intermediate Mechanics I	3
PHY 350 Electricity and Magnetism I	3
PHY 360 Heat and Thermodynamics or PHY 462 Kinetic Theory and Statistical Mechanics	3
PHY 370 Introduction to Modern Physics	3
PHY 431 Intermediate Mechanics II	3
PHY 450 Electricity and Magnetism II	3
PHY 475 Introduction to Quantum Mechanics	3
PHY 481 Mathematical Physics	3
PHY 417 Undergraduate Research Laboratory or PHY 490 Special Problems (Honors)	2

*Restricted electives: 2-11*

Choose three of the following laboratory courses:

PHY 332 Mechanics Laboratory, PHY 372 Modern Physics Laboratory, PHY 436 Vibration and Sound, PHY 442 Optics Laboratory, PHY 456 Electronics for Scientists, PHY 458 Microcomputer and Digital Electronics, PHY 471 Nuclear Physics	
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*General electives in physics and astronomy: 0-8*

No physics or astronomy courses numbered less than 300 are to be used as electives on this major. PHY 325 is not to be used as an elective on this major.

**Additional required courses: 21**

#MATH 120 Calculus I (satisfies general education requirement I.4)	4
#MATH 121 Calculus II (satisfies general education requirement I.4)	4
#MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4)	3
MATH 223 Multivariable Calculus	4
MATH 325 Differential Equations	3
#COSC 237 Computer Programming and Numeric Methods (satisfies general education requirement I.5)	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/phy/ugrad/major/resrch.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/phy/ugrad/major/resrch.html).

**Total: 70 hours**

*#Advising note:* 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.

## General Science Major

### Secondary Teacher Certification

**ISIS major code: PH31**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in general science, certification code "DX." This program of studies meets all requirements of the National Science Teachers Association. The certification test covering this field is #16, "Science."

**Teaching major/minor: 56-57**

Choose a cognate minor in one of the following five science

areas: 20-21

Biology (20)

Chemistry (20)

Earth Science (21)

Mathematics (20)

Physics (20)

Select courses for your minor in consultation with an adviser in the appropriate department.

With a **biology minor**, take the following for the group major:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3)	4
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3)	4
#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3)	4
GESC 324 Weather	3
MATH 105 College Algebra	3
MATH 107 Plane Trigonometry	2
#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3)	4
PHY 222 Electricity and Light	4
Approved electives in chemistry, earth science mathematics, and physics	8

With a **chemistry minor**, take the following for the group major:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3)	4
#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3)	4
BIOL 224 Principles of Conservation	4
#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3)	4
GESC 324 Weather	3
MATH 105 College Algebra	3
MATH 107 Plane Trigonometry	2
#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3)	4
PHY 222 Electricity and Light	4
Approved electives in biology, earth science mathematics, and physics	4

With an **earth science minor**, take the following for the group major:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3)	4
#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3)	4
BIOL 224 Principles of Conservation	4
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3)	4
MATH 105 College Algebra	3
MATH 107 Plane Trigonometry	2
#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3)	4
PHY 222 Electricity and Light	4



Approved electives in biology, chemistry, mathematics and physics .....	7
With a <b>mathematics minor</b> , take the following for the group major:	
#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) .....	4
#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) .....	4
BIOL 224 Principles of Conservation .....	4
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
GESC 324 Weather .....	3
#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) .....	4
PHY 222 Electricity and Light .....	4
Approved electives in biology, chemistry, earth science and physics .....	5
With a <b>physics minor</b> , take the following for the group major:	
#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) .....	4
#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) .....	4
BIOL 224 Principles of Conservation .....	4
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
GESC 324 Weather .....	3
#MATH 120 Calculus I (satisfies general education requirement I.4) .....	4
#MATH 121 Calculus II (satisfies general education requirement I.4) .....	4
Approved electives in biology, chemistry, mathematics and mathematics .....	5

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/phy/ugrad/major/genosci\\_ts.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/phy/ugrad/major/genosci_ts.html).

*#Advising note:* 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.

## Physics Major

### Secondary Teacher Certification

#### ISIS major code: PH33

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 certification test covering this field is #19, "Physics."

<b>Teaching Major</b> .....	40
ASTR 204 Astronomical Investigations .....	1
#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) .....	4
#MATH 121 Calculus II (satisfies general education requirement I.4) .....	4
#MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) .....	3
MATH 223 Multi variable Calculus .....	4
#PHY 223 Mechanics, Sound, and Heat (also satisfies general education requirement II.3) .....	5

PHY 224 Electricity and Light .....	5
PHY 330 Intermediate Mechanics I .....	3
PHY 350 Electricity and Magnetism I .....	3
PHY 370 Introduction to Modern Physics .....	3
PHY 406 Ethical Issues in Physics .....	1
Three of:	
PHY 332 Mechanics Laboratory (1)	
PHY 372 Modern Physics Laboratory (1)	
PHY 436 Vibration and Sound (4)	
PHY 442 Optics Laboratory (1)	
PHY 456 Electronics for Scientists (4)	
PHY 458 Microcomputer and Digital Electronics (4)	
PHY 471 Nuclear Physics (4)	

Zero to four hours of electives in physics (300 level and above) to complete 32 hours of physics and astronomy courses.

#### Additional Requirement

A four-hour geology course .....	4
An additional four hours in the areas of biology, chemistry or geology .....	4

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/phy/ugrad/major/phy\\_ts.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/phy/ugrad/major/phy_ts.html).

*#Advising note:* 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.

## Astronomy Group Minor

#### ISIS minor code: PH01

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.

<b>Required courses:</b> .....	11
ASTR 204 Astronomical Investigations .....	1
#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) .....	4
ASTR 315 Observational Astronomy .....	3
ASTR 370 Astrophysical Concepts .....	3

<b>Restricted electives:</b> .....	13
Choose 13 credits from approved courses in physics, astronomy, mathematics or chemistry in consultation with the advising coordinator for astronomy.	

**Total:** .....

24 hours

*#Advising note:* This course satisfies both general education requirements and requirements of the minor. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

## Group Minor in General Science

#### ISIS minor code: PH02

A group minor in general science 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 (satisfies general education requirement II.3) .....	4
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
MATH 105 College Algebra .....	3
MATH 107 Plane Trigonometry .....	2

- #PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) ..... 4
- Three hours from: ..... 3
- CHEM 123 General Chemistry II (3)
- CHEM 124 General Chemistry II Laboratory (1)
- GESC 324 Weather (3)
- #COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) (3)
- PHY 222 Electricity and Light (4)
- Others as approved by general science adviser

With a **major in chemistry**, take the following courses:

- #ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) ..... 4
- #BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) ..... 4
- #GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) ..... 4
- MATH 105 College Algebra ..... 3
- MATH 107 Plane Trigonometry ..... 2
- #PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) ..... 4
- Three hours from: ..... 3
- BIOL 224 Principles of Conservation (4)
- GESC 324 Weather (3)
- #COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) (3)
- PHY 222 Electricity and Light (4)
- Others as approved by general science adviser

With a **major in earth science**, a structured general science minor is included in the program.

With a **major in mathematics**, take the following courses:

- #ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) ..... 4
- #BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) ..... 4
- #CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ... 4
- #GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) ..... 4
- #PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) ..... 4
- Four hours from: ..... 4
- BIOL 224 Principles of Conservation (4)
- #CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) (4)
- GESC 324 Weather (3)
- PHY 222 Electricity and Light (4)
- Others as approved by general science adviser

With a **major in physics**, take the following courses:

- #ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) ..... 4
- \*#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) ..... 4
- #CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ... 4
- #GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) ..... 4
- #MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4
- Four hours from: ..... 4
- BIOL 224 Principles of Conservation (4)
- #CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) (4)
- GESC 324 Weather (3)

- #COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) (3)
- Others as approved by general science adviser

**Approved electives:**

- BIOL 224 Principles of Conservation, CHEM 123 General Chemistry II, CHEM 124 General Chemistry II Laboratory, GESC 324 Weather, #COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5), PHY 222 Electricity and Light.

This list is not complete; consult with the general science adviser for other possible courses.

**Total: ..... 24 hours**

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Physics Minor**

**ISIS minor code: PH06**

**Required physics courses: ..... 13**

- #PHY 223 Mechanics, Sound, and Heat (also satisfies general education requirement II.1 or II.3) ..... 5
- PHY 224 Electricity and Light ..... 5
- PHY 370. Introduction to Modern Physics ..... 3

**Restricted electives: ..... 1-4**

Choose one of the following laboratory courses:

- PHY 332 Mechanics Laboratory, PHY 372 Modern Physics Laboratory, PHY 436 Vibration and Sound, PHY 442 Optics Laboratory, PHY 452 Electrical Measurements, PHY 456 Electronics for Scientists, PHY 458 Micro-computer and Digital Electronics, PHY 471 Nuclear Physics

**Electives in physics to complete the 20-hour minor: ..... 3-6**

No physics courses numbered less than 300 are to be used as electives on this minor. No astronomy courses can be used on this minor.

**All students earning a minor in physics must also take, as a minimum, the following courses in mathematics. (These courses may be used on a minor in mathematics.)**

- #MATH 120 Calculus I (satisfies general education requirement I.4) ..... 4
- #MATH 121 Calculus II (satisfies general education requirement I.4) ..... 4

**Total: ..... 20 hours**

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**General Science Minor (available only to majors in one of the sciences)**

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

**ISIS minor code: PH32**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code "DX." The certification test covering this field is #16, "Science."

With a **major in biology**, take the following courses:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) .....	4
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
MATH 105 College Algebra .....	3
MATH 107 Plane Trigonometry .....	2
#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) .....	4
Three hours from: .....	3
CHEM 123 General Chemistry II (3)	
CHEM 124 General Chemistry II Laboratory (1)	
GESC 324 Weather (3)	
#COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) (3)	
PHY 222 Electricity and Light (4)	
Others as approved by general science adviser	

With a **major in chemistry**, take the following courses:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) .....	4
#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) .....	4
#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
MATH 105 College Algebra .....	3
MATH 107 Plane Trigonometry .....	2
#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) .....	4
Three hours from: .....	3
BIOL 224 Principles of Conservation (4)	
GESC 324 Weather (3)	
#COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) (3)	
PHY 222 Electricity and Light (4)	
Others as approved by general science adviser	

With a **major in earth science**, a structured general science minor is included in the program.

With a **major in mathematics**, take the following courses:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) .....	4
#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) .....	4
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.3) .....	4
Four hours from: .....	4
BIOL 224 Principles of Conservation (4)	
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) (4)	
GESC 324 Weather (3)	
PHY 222 Electricity and Light (4)	
Others as approved by general science adviser	

With a **major in physics**, take the following courses:

#ASTR 205 Principles of Astronomy (satisfies general education requirement II.3) .....	4
*#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) .....	4
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4

#GESC 108 Earth Science (satisfies general education requirement II.1 or II.3) .....	4
#MATH 120 Calculus I (satisfies general education requirement I.4) .....	4
Four hours from: .....	4
BIOL 224 Principles of Conservation (4)	
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) (4)	
GESC 324 Weather (3)	
#COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) (3)	
Others as approved by general science adviser	

**Total: .....** 24 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Physics Minor

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

**ISIS minor code: PH36**

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 certification test covering this field is #19, "Physics."

#MATH 120 Calculus I (satisfies general education requirement I.4) .....	4
#MATH 121 Calculus II (satisfies general education requirement I.4) .....	4
(Math requirement to meet physics prerequisites)	
#PHY 223 Mechanics, Sound, and Heat (satisfies general education requirement II.1 or II.3) .....	5
PHY 224 Electricity and Light .....	5
PHY 370 Introduction to Modern Physics .....	3
One of:	
PHY 332 Mechanics Laboratory (1) (Pre- or coreq: PHY 330)	
PHY 372 Modern Physics Laboratory (1)	
PHY 436 Vibration and Sound (4)	
PHY 442 Optics Laboratory (1) (Pre- or coreq: PHY 440)	
PHY 452 Electrical Measurements (4)	
PHY 456 Electronics for Scientists (4)	
PHY 458 Microcomputer and Digital Electronics (4)	
PHY 471 Nuclear Physics (Prereq: PHY 370)	
Electives in physics to total 20 hours. No physics courses numbered less than 300 are to be used as electives on this minor. No astronomy courses can be used on this minor.	

**Total: .....** 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Astronomy Courses

**ASTR 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ASTR 203 Exploration of the Universe** 3 hrs  
An introductory astronomy course for students of any curriculum. The solar system, stars, galaxies, cosmology and the history of astronomy. Observations with telescopes are scheduled a few evenings each semester. ASTR 204 may be taken concurrently with this course. *Cannot be applied toward a physics major or minor.*

**ASTR 204 Astronomical Investigations** 1 hr  
A laboratory course for the beginning astronomy student. The techniques and concepts of astronomy. Two hours of laboratory per week.  
*Prereq or coreq: ASTR 203 or ASTR 205.*

**ASTR 205 Principles of Astronomy** 4 hrs  
An astronomy course for students desiring a comprehensive introduction to astronomy. Topics discussed in ASTR 203 are covered in more detail, and additional topics are introduced. Especially recommended for science students. ASTR 204 may be taken concurrently. *Not open to students with credit in ASTR 203.*

**ASTR 297/298/299 Independent Study-Astronomy** 1/2/3 hrs  
An intensive study of a problem or group of problems under the direction of a department faculty member.  
*Prereq: Approval of the faculty member and department permission.*

**ASTR 315 Observational Astronomy** 3 hrs  
The practical aspects of astronomy emphasizing advanced amateur observational practices such as identification of astronomical objects using charts and references, telescopes, imaging and darkroom techniques, and computer applications.  
*Prereq: ASTR 203 or ASTR 205.*

**ASTR 370 Astrophysical Concepts** 3 hrs  
The emphasis is on the theoretical understanding and analytical treatment of topics in astrophysics. These topics include celestial mechanics, astronautics, planetary atmospheres, stellar structure, stellar evolution, galaxies and cosmology.  
*Prereq: PHY 224; or PHY 222 and MATH 121.*

**ASTR 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ASTR 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ASTR 497/498/499 Independent Study-Astronomy** 1/2/3 hrs  
An intensive study of a problem or group of problems under the direction of a department faculty member.  
*Prereq: Approval of the faculty member and department permission.*

### Physics Courses

**PHY 100 Science for Elementary Teachers** 3 hrs  
Designed to stimulate interest in science by the use of simple and inexpensive equipment to demonstrate scientific principles. Sound, light, heat, electricity and magnetism. *Does not count toward a physics major or minor. Open only to students pursuing any curriculum for elementary teachers.*

**PHY 101 Physical Science in the Arts** 4 hrs  
This course is designed to give students a general background in the basic principles of physics, as applied to art, music and dance, with an emphasis on exploring the nature of music and its production. Laboratory experiments complement the lecture by providing hands-on experi-

ences to verify and demonstrate those principles. Three lecture hours and one two-hour laboratory per week. *Does not count toward a physics major or minor.*

**PHY 110 Physical Science** 4 hrs  
Designed for the non-science major with little or no background in science or mathematics. Provides a more perceptive view of physical reality by introducing central ideas, principles and relationships of physical science that relate to one's everyday environment. Students in science, medicine or engineering should take physics courses PHY 221 and PHY 222, or PHY 223 and PHY 224. *Does not count toward a physics major or minor.*

**PHY 177/178/179 Special Topics** 1/2/3 hrs  
This special topics course will be used to teach aspects of physics at an elementary level that would not be regularly offered. A new course may be taught on an experimental basis with this offering.  
*Prereq: See department for prerequisites.*

**PHY 221 Mechanics, Sound, and Heat** 4 hrs  
A basic course in college physics for liberal arts students who desire an introduction to physics and for preprofessional students who do not require a rigorous knowledge of problem solving. All physics majors and pre-engineers must elect PHY 223. The laws of mechanics, sound and heat with more emphasis on applications and less on problems. Laboratory: two consecutive hours, one day per week.  
*Prereq: MATH 105 and MATH 107, with a "C" or better in both courses.*

**PHY 222 Electricity and Light** 4 hrs  
A continuation of PHY 221. Static and current electricity, magnetism and light. Laboratory: two consecutive hours, one day per week.  
*Prereq: PHY 221.*

**PHY 223 Mechanics, Sound, and Heat** 5 hrs  
A basic course in college physics for students majoring in physical science and those on a pre-engineering curriculum. Laws of mechanics, sound and heat together with their application. Laboratory: two consecutive hours, one day per week.  
*Prereq: MATH 120.*

**PHY 224 Electricity and Light** 5 hrs  
A continuation of PHY 223. Static and current electricity, magnetism and light. Laboratory: two consecutive hours, one day per week.  
*Prereq: PHY 223; MATH 121.*

**PHY 229 Strength and Elasticity of Materials** 4 hrs  
Fundamental principles of mechanics applied to solids. Equilibrium, elasticity, stress and strain, generalized Hooke's Law, tension, torsion, shear, bending, deflection of beams, theory of columns, and strain energy. Four lecture-recitation periods per week. Laboratory required.  
*Prereq: PHY 223; MATH 120.*

**PHY 230 Engineering Dynamics** 4 hrs  
Vector representation of physical quantities. Statics of rigid bodies. Friction, kinematics of particles and rigid bodies. Dynamics of particles and rigid bodies. Work and energy. Four lecture-recitation periods per week.  
*Prereq: PHY 223; MATH 121; MATH 122.*

**PHY 277/278/279 Special Topics** 1/2/3 hrs  
This special topics course will be used to teach aspects of physics at an intermediate level that would not be regularly offered. A new course may be taught on an experimental basis with this offering.  
*Prereq: See department for prerequisites.*

**PHY 311 Elementary Physical Science** 3 hrs  
Designed particularly for teachers in elementary science. An elementary study of motion, forces, energy, matter, heat, sound, light, magnetism and electricity. Focus is on simple experimental projects, followed by



class discussions. Most of the apparatus will be made from materials available in the home or at a variety store. *Does not count toward a physics major or minor.*

*Prereq: PHY 100.*

**PHY 325 Methods of Teaching the Physical Sciences** 3 hrs

A study of strategies and procedures used in secondary school teaching. Students will be provided with the opportunity to familiarize themselves with the newer science curricula; visit secondary school classrooms; present classroom demonstrations and conduct laboratory work; learn to use modern teaching aids, especially the computer, in classroom teaching; and develop means of evaluating cognitive and affective learning. Two recitation and two laboratory hours per week. *Open to prospective teachers following the junior-senior high school curriculum who are majoring or minoring in general science or a physical science. Not open to students on academic probation. Does not count toward physics major or minor.*

*Prereq: CURR 305.*

**PHY 330 Intermediate Mechanics I** 3 hrs

The statics and dynamics of a particle, projectiles with air resistance, central forces, dynamics of a system of particles, vibrational motion and pendulums.

*Prereq: PHY 224; MATH 121; MATH 122.*

**PHY 332 Mechanics Laboratory** 1 hr

A laboratory course providing experimental studies in intermediate mechanics. Three hours of laboratory per week.

*Prereq: PHY 330; may be taken concurrently.*

**PHY 350 Electricity and Magnetism I** 3 hrs

An introductory course dealing mainly with electrostatics and magnetostatics. The following topics will be covered: vector calculus; Coulomb's law; Gauss's and Ampere's law; electric and magnetic fields; potentials and potential energies; solution of Laplace's equation for rectangular, cylindrical, and spherical geometries in the presence of conductors, dielectrics, and magnetic materials; electric and magnetic susceptibilities; resistance; capacitance; inductance; electromotive force; and electromagnetic induction.

*Prereq: PHY 224; MATH 223.*

**PHY 360 Heat and Thermodynamics** 3 hrs

An intermediate course in the fundamentals of heat and thermodynamics. Thermal expansion, specific heat, change of state, heat transfer, elementary kinetic theory, thermodynamic laws, entropy, and other thermodynamic functions.

*Prereq: PHY 222 or PHY 224; MATH 223.*

**PHY 370 Introduction to Modern Physics** 3 hrs

An introduction to modern physics and relativity. The qualitative interpretation, according to the modern quantum theory, of experimental results in atomic and nuclear physics.

*Prereq: MATH 120; PHY 222 or PHY 224.*

**PHY 372 Modern Physics Laboratory** 1 hr

A laboratory course providing experimental studies in such areas as late classical, relativistic, quantum, and nuclear physics. Three hours of laboratory per week.

*Prereq: PHY 370; may be taken concurrently.*

**PHY 377/378/379 Special Topics** 1/2/3 hrs

This special topics course will be used to teach some aspects of physics at an advanced level that would not be regularly offered. A new course may be taught on an experimental basis with this offering.

*Prereq: See department for prerequisites.*

**PHY 387 Cooperative Education in Physics** 3 hrs

Four to six months of full-time employment at an industrial firm specially chosen for imparting a practical educational experience in physics. The program consists of two work experiences (PHY 387 and PHY 487) alternating with full-time attendance at the University. Use toward a physics major or minor subject to department permission. Offered on a graded credit/no credit basis.

*Prereq: Junior standing. Admittance by application only.*

**PHY 390/391 Physics Project** 2 hrs each

A suitable project in physics is to be done on an individual basis. Arrangements must be made with a physics faculty member before the beginning of the semester.

*Prereq: Department permission.*

**PHY 397/398/399 Independent Study** 1/2/3 hrs

An intensive study of a problem or group of problems under the direction of a department faculty member.

*Prereq: Approval by the faculty member and department permission.*

**PHY 406 Ethical Issues in Physics** 1 hr

Ethical issues that a career physicist may encounter are studied and discussed. Historical accounts and essays are used to illustrate potential ethical conflicts associated with interactions within the scientific community as well as interactions between the scientific community and society at large.

*Prereq: PHY 224.*

**PHY 417 Undergraduate Research Laboratory** 2 hrs

Laboratory work of a research nature done under the direction of a staff member working on a research problem. One problem will extend through the semester, with a comprehensive report required. Six hours are to be spent in the laboratory each week. Arrangements must be made with the department before the beginning of the semester. Open to seniors nearing completion of a physics major.

*Prereq: Department permission.*

**PHY 420 Engineering Physics Design** 2 hrs

This course seeks to integrate knowledge of wide-ranging topics in engineering physics in order to solve design problems. Major emphasis is placed on a group-oriented term project which must successfully be completed from concept through analysis to layout and report.

*Prereq: At least 30 hours of physics courses or department permission.*

**PHY 431 Intermediate Mechanics II** 3 hrs

A continuation of PHY 330. Mechanics of a rigid body, generalized coordinates, the Lagrangian and Hamiltonian functions, relative motion.

*Prereq: PHY 330, MATH 223.*

**PHY 436 Vibration and Sound** 4 hrs

Detailed studies of vibration and wave motion with specific emphasis on acoustic waves in air and other media. Reflection, refraction and interference of sound; vibrating strings and air columns; electroacoustic transducers; architectural acoustics. Laboratory required. Laboratory meets once per week for three hours.

*Prereq: PHY 222 or PHY 224; MATH 223.*

**PHY 440 Optics** 3 hrs

An intermediate course dealing with fundamentals of geometrical and physical optics. Reflection, refraction, lenses and optical instruments, spectrometers and spectra, interference, diffraction and polarization.

*Prereq: PHY 221/PHY 223 and PHY 222 or PHY 224; MATH 121.*

**PHY 442 Optics Laboratory** 1 hr

A laboratory course providing experimental studies in geometrical, physical and quantum optics. Three hours of laboratory per week.

*Prereq: PHY 440; may be taken concurrently.*

- PHY 450 Electricity and Magnetism II** 3 hrs  
A brief review of electrostatics and magnetostatics. The following topics will be covered: Faraday's Law, displacement current, Maxwell's equations, Poynting vector, plane wave solutions, polarization, wave propagation in dielectrics and conductors, dispersion, Fresnel's equations, guided waves, dipole radiation, Lienard-Wiechert potentials, and radiation theory.  
*Prereq: PHY 350; MATH 325.*
- PHY 452 Electrical Measurements** 4 hrs  
An intermediate course in electricity. The fundamental principles involved in measuring electric and magnetic quantities, the use of high-grade electrical apparatus. Experiments include studies of galvanometers, Wheatstone bridges of various forms, potentiometers and standard cells, vacuum tubes, magnetic measurements and methods of measuring capacitance and inductance. Laboratory: four consecutive hours, one day per week.  
*Prereq: PHY 221/PHY 223 and PHY 222 or PHY 224.*
- PHY 456 Electronics for Scientists** 4 hrs  
Theory and application of passive and semiconductor circuit elements. Analog and digital circuit analysis and design problems. Lecture: three hours per week. Laboratory: three hours per week.  
*Prereq: PHY 222 or PHY 224; MATH 121.*
- PHY 458 Microcomputer and Digital Electronics** 4 hrs  
Physical and logical structure of microcomputer systems. Interface techniques and applications to measurements. Basic digital electronics used in microcomputers: logic gates, memories, and interface circuits. Laboratory: three consecutive hours, one day per week.  
*Prereq: PHY 456.*
- PHY 462 Kinetic Theory and Statistical Mechanics** 3 hrs  
An introduction to the kinetic theory of gases and statistical mechanics. For students concentrating in physics and those contemplating advanced study in related fields of science and engineering. Maxwell-Boltzmann distribution law, entropy and probability, transport phenomena, quantum statistics, Bose-Einstein and Fermi-Dirac statistics, the connection between statistical mechanics and thermodynamics, the equation of state, the elementary electron theory of metals, and statistical methods in nuclear physics.  
*Prereq: PHY 224; MATH 223.*
- PHY 471 Nuclear Physics** 3 hrs  
Topics include basic nuclear structure, nuclear decay and radioactivity, nuclear reactions and particle physics.  
*Prereq: PHY 370, MATH 121.*
- PHY 475 Introduction to Quantum Mechanics** 3 hrs  
The fundamental ideas of the quantum theory; the dual nature of matter, wave equations and wave packets, observable and linear operators, the application of the Schrodinger and Heisenberg equations to elementary systems, Pauli's theory of electron spin.  
*Prereq: PHY 370; MATH 223.*
- PHY 477/478/479 Special Topics** 1/2/3 hrs  
This special topics course will be used to teach aspects of physics at an advanced level that would not regularly be offered.  
*Prereq: See department for prerequisites.*
- PHY 481 Mathematical Physics** 3 hrs  
Advanced mathematical topics for the physics student, with applications drawn from the field of physics. Vectors, matrices, tensors, partial differential equations, contour integration, calculus of variations, integral equations and transforms, eigenvalue functions, perturbation and group theory, special functions.  
*Prereq: MATH 325; PHY 330.*
- PHY 485 Fluid Dynamics** 3 hrs  
An introduction to the statics and dynamics of real and ideal fluids: properties of fluids, mathematical models, dimensional analysis, boundary layer flow, flow in pipes, compressible, incompressible, laminar and turbulent flow.  
*Prereq: PHY 230 or PHY 330; PHY 360.*
- PHY 487 Cooperative Education in Physics** 3 hrs  
Four to six months of full-time employment at an industrial firm specially chosen for imparting a practical educational experience in physics. The program consists of two work experiences (PHY 387 and PHY 487) alternating with full-time attendance at the University. Use toward a physics major or minor subject to department permission. Offered on a graded credit/no credit basis.  
*Prereq: PHY 387. Admittance by application only.*
- PHY 490/491 Special Problems (Honors Courses)** 2 hrs each  
An original experimental or theoretical problem in some area of physics investigated on an individual basis. Arrangements must be made with a staff member before the beginning of the semester.  
*Prereq: 20 hours of physics, a "B" average in physics, and department permission.*
- PHY 495 Readings in Physics (Honors Course)** 1 hr  
Designed to give individual students a planned intensive reading program in some field of physics, the subject being chosen jointly by the student and the instructor. A part of this course will be the presentation of an hour-long talk in the chosen subject at an open meeting of the Physics Department staff and students.  
*Prereq: 20 hours of physics and department permission.*
- PHY 497/498/499 Independent Study—Physics** 1/2/3 hrs  
An extensive study of a problem or group of problems under the direction of a department faculty member.  
*Prereq: Approval by the faculty member and department permission.*

# Political Science

Web site: [www.emich.edu/public/polisci/polisci.htm](http://www.emich.edu/public/polisci/polisci.htm)

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**Professors:** Robert C. Grady, Benjamin T. Hourani, Karen E. Lindenberg, James S. Magee, F. Elaine Martin, Joseph F. Ohren, Raymond A. Rosenfeld, Joanna V. Scott, Edward Sidlow

**Associate Professors:** Michael Harris, David W. Hortin, Rhonda S. Kinney, James W. Pfister

**Assistant Professor:** Jeffrey Bernstein, Adrian J. Lottie, Barry Pyle, Richard Stahler-Sholk

Political science studies every aspect of public life, encouraging a high level of civic literacy and political participation. It explores political thinking, values, systems of government, and the socio-economic environments in which they function. Legislative, executive and judicial structures of government are emphasized, along with the roles of parties and interest groups, voting behavior, public opinion and political socialization. The discipline also considers such matters as public law, public policy and public administration.

Political science draws upon a variety of methodological approaches to focus on public life, including both the qualitative social sciences and quantitative analytic techniques. Computer-assisted learning is encouraged.

Students who select major programs within the Political Science Department are successful in a broad range of careers such as: elective public office, legal studies, state and local government service, public opinion research, primary and secondary school teaching, journalism and business. Many pursue post-baccalaureate education at the master's and doctoral levels and in professional schools. As an inherently interdisciplinary liberal arts discipline, political science coordinates prelaw studies for the University and also participates in several international programs of study.

## Degrees:

Bachelor of Arts and Bachelor of Science

## Programs of Study

### Majors:

Political science  
 Political science for secondary education  
 Public administration  
 Public law and government  
 Public safety administration

### Minors:

Political science  
 Political science for secondary, K-12, and special education-secondary  
 Public administration  
 Public law and government

### Preprofessional Program:

Prelaw

Advising is coordinated by the Political Science office. Faculty advisers are available during posted office hours or by appointment. Students enrolled in any of the majors offered by the department are expected to consult an assigned department faculty adviser when they declare the major and prior to each registration for classes.

## Advising Coordinators:

Political science: James S. Magee  
 Public administration: Joseph F. Ohren  
 Public law and government: David W. Hortin  
 Prelaw: David W. Hortin

Graduate study in the Political Science Department consists of a master of public administration degree. 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. The M.P.A. and the M.A. programs are described in the graduate catalog.

## Political Science Major

**ISIS major code: PL01**

To fulfill the requirements for a major in political science, students must (1) complete at least 30 credit hours in the major as specified below, (2) complete at EMU at least four courses in the major numbered 300 or above, and (3) attain at least a "C" average in the major. Students are further expected to take #PLSC 112/#PLSC 113, one of their general education courses, prior to the required core courses and to complete #PLSC 112/#PLSC 113 and the required core courses within the first 18 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 nor the internship/cooperative education course nor PLSC 470 meets the group distribution requirements specified below under areas of concentration, but both may be taken as free political science electives.

**Required core courses:** ..... 9

Choose one: ..... 3

PLSC 210 Introduction to Political Analysis (3)  
 PLSC 310 Methods of Political Research (3)

Choose two: ..... 6

PLSC 211 Introduction to Comparative Government (3)  
 PLSC 212 Introduction to International Politics (3)  
 PLSC 213 Introduction to Political Thought (3)

**Areas of concentration:** ..... 21

Choose seven courses from the three groups listed below, including at least one course from each group.

*Group I*—American politics, public law, and administration

PLSC 202 State and Local Government (3)  
 PLSC 216 Municipal Government (3)  
 PLSC 270 Public Administration (3)  
 PLSC 301 The American Legal System (3)  
 PLSC 312 American Constitutional Law I (3)  
 PLSC 313 American Constitutional Law II (3)  
 PLSC 330 Urban Politics (3)  
 PLSC 332 Intergovernmental Relations and Federalism (3)  
 PLSC 335 Labor in American Politics (3)  
 PLSC 352 Politics of Government Budgeting (3)  
 PLSC 358 Parties, Elections, and Interest Groups (3)  
 PLSC 364 The Legislative Process (3)  
 PLSC 365 Women and Politics (3)  
 PLSC 380 The American Presidency (3)  
 PLSC 381 Public Policy Analysis (3)  
 PLSC 385 Judicial Process and Behavior (3)

*Group II*—Comparative politics and international relations

PLSC 221 Vietnam (3)  
 PLSC 222 War and Peace in the Nuclear Age (3)  
 PLSC 311 Third World Politics (3)  
 PLSC 327 American Foreign Policy Process (3)  
 PLSC 341 International Law (3)  
 PLSC 342 International Organizations (3)  
 PLSC 354 Government and Politics of Canada (3)  
 PLSC 361 Russian Politics in Transition (3)  
 PLSC 367 Contemporary Political Systems of Latin America (3)  
 PLSC 371 Government and Politics of the Middle East (3)  
 PLSC 372 Government and Politics of Sub-Saharan Africa (3)  
 PLSC 374 Asian Political Systems (3)

- PLSC 462 Russian Foreign Relations (3)
- PLSC 467 Advanced International Relations (3)

**Group III**—Political theory and methods

- PLSC 308 Political Violence and Revolution (3)
- PLSC 359 Public Opinion and Political Learning (3)
- PLSC 382 Politics and the 21st Century (3)
- PLSC 418 20th-Century Political Theory (3)
- PLSC 420 Democracy and Power (3)
- PLSC 422 American Political Theory (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/pls/ugrad/major/pls.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/pls/ugrad/major/pls.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

**Public Administration Major**

**ISIS major code: PL02**

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 are more efficient and effective.

The major is interdisciplinary, involving political science, economics, sociology, business administration, computer science/business computer systems and English composition. Students who complete the major have access to a broad range of careers in government service (federal, state or local) or business, or enter graduate or professional schools for further study.

A minor is to be selected in consultation with a public administration adviser. Recommended are: 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, labor studies, land use analysis, military science, public law and government, and social work.

With permission of the public administration adviser, six credit hours of internship credit (PLSC 480, PLSC 486/488/489) or six credit hours of cooperative education credit (PLSC 387 and PLSC 487) may be substituted for two of the restricted electives.

Courses to be completed prior to beginning the major are:

- #PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1)
- #ECON 201 Principles of Economics I (satisfies general education requirement III.3)
- #ECON 202 Principles of Economics II (if #ECON 201 is taken, satisfies general education requirement III.4)
- #SOCL 105 Introductory Sociology (satisfies general education requirement III.3)

**Required courses:** ..... 18

- PLSC 270 Public Administration ..... 3
- PLSC 334 Personnel Administration in Government ..... 3
- PLSC 352 Politics of Government Budgeting ..... 3
- PLSC 381 Public Policy Analysis ..... 3
- PLSC 431 Theories of Public Organization ..... 3
- ACC 246 Accounting for Public Administrators ..... 3

**Restricted electives:** ..... 18

Choose one course from each of the following six categories:

- a. ECON 350 Government Finance, ECON 455 Cost-Benefit Analysis
- b. #COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5), #IS 215 End-User Computing (satisfies general education requirement I.5)

- c. #SOCL 250 Social Statistics I (satisfies general education requirement I.4), DS 265 Business Statistics I, ECON 310 Economic Statistics
- d. PLSC 310 Methods of Political Research, SOCL 304 Methods in Sociological Research
- e. #ENGL 225 Intermediate English Composition (satisfies general education requirement I.3), JRNL 314 Writing for Public Relations, #ENGL 324 Principles of Technical Communication (satisfies general education requirement I.3), ENGL 328 Writing: Style and Language, MGMT 202 Business Communication
- f. PLSC 216 Municipal Government, PLSC 330 Urban Politics, PLSC 332 Intergovernmental Relations and Federalism, PLSC 470 Seminar in Political Science

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/pls/ugrad/major/pubadmin.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/pls/ugrad/major/pubadmin.html).

**Total:** ..... 36 hours

*#Advising note:* 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.

**Public Law and Government Major**

**ISIS major code: PL03**

To fulfill the requirements for a major in public law and government, students must (1) complete #PLSC 112/#PLSC 113, a general education requirement and a prerequisite for public law and government courses; (2) complete at least 16 hours in the major as specified below; (3) complete at EMU at least four courses in the major numbered 300 or above; and (4) attain at least a "C" average in the major. A maximum of six credit hours of independent study or internship/cooperative education courses, or a combination of both, may be applied to the 36 credit hours required for the major.

**Required courses** ..... 9

- PLSC 301 The American Legal System ..... 3
- Choose two courses from the following: ..... 6
- PLSC 312 American Constitutional Law I, PLSC 313 American Constitutional Law II, PLSC 341 International Law, PLSC 412 Comparative Legal Systems

**Restricted electives:** ..... 9

Choose one course in each of the following three groups:

- Group I*—American politics and administration
  - PLSC 202 State and Local Government; PLSC 216 Municipal Government; PLSC 270 Public Administration; PLSC 330 Urban Politics; PLSC 332 Intergovernmental Relations and Federalism; PLSC 335 Labor in American Politics; PLSC 352 Politics of Government Budgeting; PLSC 358 Parties, Elections, and Interest Groups; PLSC 364 The Legislative Process; PLSC 365 Women and Politics; PLSC 380 The American Presidency; PLSC 381 Public Policy Analysis

- Group II*—Comparative politics and international relations
  - PLSC 211 Introduction to Comparative Government, PLSC 212 Introduction to International Politics, PLSC 221 Vietnam, PLSC 222 War and Peace in the Nuclear Age, PLSC 311 Third World Politics, PLSC 327 American Foreign Policy Process, PLSC 342 International Organizations, PLSC 354 Government and Politics of Canada, PLSC 361 Russian Politics in Transition, PLSC 367 Contemporary Political Systems of Latin America, PLSC 371 Government and Politics of the Middle East, PLSC 372 Government and Politics of Sub-Saharan Africa, PLSC 374 Asian Political Systems, PLSC 462 Russian Foreign Relations, PLSC 467 Advanced International Relations



*Group III—Political theory and methods*

- PLSC 210 Introduction to Political Analysis, PLSC 213 Introduction to Political Thought, PLSC 308 Political Violence and Revolution, PLSC 310 Methods of Political Research, PLSC 359 Public Opinion and Political Learning, PLSC 382 Politics and the 21st Century, PLSC 418 20th-Century Political Theory, PLSC 420 Democracy and Power, PLSC 422 American Political Theory

**Other electives:** ..... 12

Choose four courses from the following:

- PLSC 312 American Constitutional Law I, PLSC 313 American Constitutional Law II, PLSC 341 International Law, PLSC 385 Judicial Process and Behavior, PLSC 387 Cooperative Education in Political Science, ECON 407 Economic Analysis and Law, PLSC 412 Comparative Legal Systems, PLSC 456 Criminal Law I, HIST 465 United States Constitutional History, PLSC 480 Field Seminar in Political Science/Public Administration, PLSC 486 Internship in Political Science/Public Administration, PLSC 487 Cooperative Education in Political Science, PLSC 488/489 Internship in Political Science/Public Administration, PLSC 497/498/499 Independent Study

**Cognate electives:** ..... 6

Courses in a related content area selected with the approval of the adviser.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/pls/ugrad/major/plg.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/pls/ugrad/major/plg.html).

**Total:** ..... 36 hours

*#Advising note:* 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.

## Public Safety Administration Major

**ISIS major code: PL05**

The Public Safety Administration Program is an interdisciplinary program involving course work in three departments in two colleges within the University. The curriculum is intended to meet the professional development needs of in-service and entry-level personnel in public safety organizations—law enforcement, public safety, fire protection, private security, and corrections—with a competency-based curriculum resting on a strong liberal arts foundation.

The public safety manager's focus is on public policy, politics, and administration. The public safety manager is concerned with 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 existing public administration major. Courses are drawn from an interdisciplinary foundation group, an administration group, and a public safety administration component including three areas: a public safety administration group, an area concentration, and 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 can 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.

**Major in public safety administration:** ..... 63

### Public Administration Core

*Foundation Group:* ..... 15

*One of:* ..... 3

- #ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) (3)
- #SOCL 214/#ANTH 214 Racial and Cultural Minorities (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)

*One of:* ..... 3

- PLSC 202 State and Local Government (3)
- PLSC 216 Municipal Government (3)
- PLSC 330 Urban Politics (3)

*One of:* ..... 3

- PLSC 313 American Constitutional Law II (3)
- CRM 300 Criminal Justice (3)

*One of:* ..... 3

- CTAC 352 Communication in Negotiation (3)
- CTAC 354 Organizational Communication (3)

*One of:* ..... 3

- PLSC 310 Methods of Political Research or SOCL 304 Methods in Sociological Research (3)

*Administration Group:* ..... 15

- PLSC 270 Public Administration ..... 3
- PLSC 334 Personnel Administration in Government ..... 3
- PLSC 352 Politics of Government Budgeting ..... 3
- PLSC 381 Public Policy Analysis ..... 3
- PLSC 431 Theories of Public Organization ..... 3

### Public Safety Administration Focus

*Public Safety Administration Group:* ..... 12

- INDT 380 Planning and Decision-Making for Public Safety ..... 3
- INDT 381 Public Relations and Public Safety ..... 3
- PLSC 450 Managing Public Safety Agencies ..... 3
- PLSC 451 Seminar in Public Safety Administration ..... 3

*Area Concentration:* ..... 15

Students must select three courses from one, and two courses from the other concentration below:

#### *Police/Fire Administration*

- CRM 431 Policing in Society (3)
- INDT 433 Arson Investigation (3)
- INDT 434 Hazardous Materials (3)
- INDT 435 Incident Command (3)
- PLSC 456 Criminal Law I (3)

#### *Corrections Administration*

- HLED 390 Drug Use and Abuse (3)
- INDT 255 Emergency Preparedness Planning (3)
- CRM 331 Introduction to Corrections (3)
- PSY 360 Abnormal Psychology (3)
- INDT 475 Managing Correctional Agencies and Facilities (3)

*Academy or Internship/Coop:* ..... 6

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

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/pls/ugrad/major/psa.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/pls/ugrad/major/psa.html).

*#Advising note:* 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.

## Political Science Major

### Secondary Teacher Certification

#### ISIS major code: PL31

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in political science, certification code "CD," and, depending on the minor selected, endorsement in economics ("CA"), geography ("CB"), history ("CC"), psychology ("CE"), sociology ("CF"), or social studies ("RX"). The certification test covering this field is #10, "Political Science."

To fulfill the requirements for a major in political science, students must (1) complete at least 30 credit hours in the major as specified below, (2) complete at EMU at least four courses in the major numbered 300 or above, and (3) attain at least a "C" average in the major. Students are further expected to take #PLSC 112/#PLSC 113, one of their general education courses, prior to the required core courses and to complete #PLSC 112/#PLSC 113 and the required core courses within the first 18 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 or internship/cooperative education course nor PLSC 470 meets the group distribution requirements specified below under areas of concentration, but both may be taken as free political science electives.

#### Teaching Major ..... 33

#PLSC 112/#PLSC 113 American Government (satisfies  
general education requirement III.1) ..... 3

Choose one: ..... 3  
PLSC 210 Introduction to Political Analysis  
PLSC 310 Methods of Political Research

Choose two: ..... 6  
PLSC 211 Introduction to Comparative Government (3)  
PLSC 212 Introduction to International Politics (3)  
PLSC 213 Introduction to Political Thought (3)

Choose seven courses from the three groups listed below,  
including at least one course from each group ..... 21

*Group I*—American politics, public law, and administration  
PLSC 202 State and Local Government (3)  
PLSC 216 Municipal Government (3)  
PLSC 270 Public Administration (3)  
PLSC 301 The American Legal System (3)  
PLSC 312 American Constitutional Law I (3)  
PLSC 313 American Constitutional Law II (3)  
PLSC 330 Urban Politics (3)  
PLSC 332 Intergovernmental Relations and Federalism (3)  
PLSC 335 Labor in American Politics (3)  
PLSC 352 Politics of Government Budgeting (3)  
PLSC 358 Parties, Elections, and Interest Groups (3)  
PLSC 364 The Legislative Process (3)  
PLSC 365 Women and Politics (3)  
PLSC 380 The American Presidency (3)  
PLSC 381 Public Policy Analysis (3)  
PLSC 385 Judicial Process and Behavior (3)

*Group II*—Comparative politics and international relations  
PLSC 221 Vietnam (3)  
PLSC 222 War and Peace in the Nuclear Age (3)  
PLSC 311 Third World Politics (3)  
PLSC 327 American Foreign Policy Process (3)  
PLSC 341 International Law (3)  
PLSC 342 International Organizations (3)  
PLSC 354 Government and Politics of Canada (3)  
PLSC 361 Russian Politics in Transition (3)  
PLSC 367 Contemporary Political Systems of Latin  
America (3)

PLSC 371 Government and Politics of the Middle East (3)

PLSC 372 Government and Politics of Sub-Saharan  
Africa (3)

PLSC 374 Asian Political Systems (3)

PLSC 462 Russian Foreign Relations (3)

PLSC 467 Advanced International Relations (3)

#### *Group III*—Political theory and methods

PLSC 308 Political Violence and Revolution (3)

PLSC 359 Public Opinion and Political Learning (3)

PLSC 382 Politics and the 21st Century (3)

PLSC 418 20th-Century Political Theory (3)

PLSC 420 Democracy and Power (3)

PLSC 422 American Political Theory (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/coa/pls/ugrad/major/pls\\_ts.html](http://www.emich.edu/public/catalogs/current/afac/colleges/coa/pls/ugrad/major/pls_ts.html).

*#Advising note:* 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.

## Political Science Minor

#### ISIS minor code: PL01

Students must complete #PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1) before beginning the course of study for the minor.

#### Required core courses: ..... 6

Choose two core courses from the following:

PLSC 210 Introduction to Political Analysis, PLSC 211  
Introduction to Comparative Government, PLSC 212  
Introduction to International Politics, PLSC 213  
Introduction to Political Thought, PLSC 310 Methods  
of Political Research

#### Area of concentration: ..... 15

Choose five courses from two of the three areas of concentration

##### *Group I*—American politics, public law, and administration

PLSC 202 State and Local Government (3)  
PLSC 216 Municipal Government (3)  
PLSC 270 Public Administration (3)  
PLSC 301 The American Legal System (3)  
PLSC 312 American Constitutional Law I (3)  
PLSC 313 American Constitutional Law II (3)  
PLSC 330 Urban Politics (3)  
PLSC 332 Intergovernmental Relations and Federalism (3)  
PLSC 335 Labor in American Politics (3)  
PLSC 352 Politics of Government Budgeting (3)  
PLSC 358 Parties, Elections, and Interest Groups (3)  
PLSC 364 The Legislative Process (3)  
PLSC 365 Women and Politics (3)  
PLSC 380 The American Presidency (3)  
PLSC 381 Public Policy Analysis (3)  
PLSC 385 Judicial Process and Behavior (3)

##### *Group II*—Comparative politics and international relations

PLSC 221 Vietnam (3)  
PLSC 222 War and Peace in the Nuclear Age (3)  
PLSC 311 Third World Politics (3)  
PLSC 327 American Foreign Policy Process (3)  
PLSC 341 International Law (3)  
PLSC 342 International Organizations (3)  
PLSC 354 Government and Politics of Canada (3)  
PLSC 361 Russian Politics in Transition (3)  
PLSC 367 Contemporary Political Systems of Latin  
America (3)  
PLSC 371 Government and Politics of the Middle East (3)

- PLSC 372 Government and Politics of Sub-Saharan Africa (3)
- PLSC 374 Asian Political Systems (3)
- PLSC 462 Russian Foreign Relations (3)
- PLSC 467 Advanced International Relations (3)
- Group III—Political theory and methods*
- PLSC 308 Political Violence and Revolution (3)
- PLSC 359 Public Opinion and Political Learning (3)
- PLSC 382 Politics and the 21st Century (3)
- PLSC 418 20th-Century Political Theory (3)
- PLSC 420 Democracy and Power (3)
- PLSC 422 American Political Theory (3)

**Total:** ..... 21 hours

### Public Administration Minor

**ISIS minor code: PL02**

**Required course:** ..... 3

- PLSC 270 Public Administration ..... 3

**Restricted electives:** ..... 12

- Choose four of the following courses:
- PLSC 334 Personnel Administration in Government, PLSC 352 Politics of Government Budgeting, PLSC 381 Public Policy Analysis, PLSC 431 Theories of Public Organization
  - ACC 246 Accounting for Public Administrators
  - ECON 350 Government Finance

**Electives:** ..... 9

Choose three courses from the remaining required or elective courses in the public administration major. With permission of a public administration adviser, three credit hours of internship credit (PLSC 480, PLSC 486, PLSC 488, or PLSC 489) or three credit hours of cooperative education credit (PLSC 387 or PLSC 487) may be applied to the public administration minor.

**Total:** ..... 24 hours

### Public Law and Government Minor

**ISIS minor code: PL03**

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 24 credit hours required for this minor.

**Required courses:** ..... 6

- PLSC 301 The American Legal System ..... 3
- Choose one course from the following: ..... 3
- PLSC 312 American Constitutional Law I (3)
- PLSC 313 American Constitutional Law II (3)
- PLSC 412 Comparative Legal Systems (3)

**Restricted electives:** ..... 6

Elect two courses from two of the three areas of concentration (Groups I, II, and III) listed under the public law and government major.

**Other electives:** ..... 12

Choose four courses from those listed as other electives in the public law and government major. One of these four electives may be a cognate in a related content area selected with the approval of the adviser.

**Total:** ..... 24 hours

### Political Science Minor

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

**ISIS minor code: PL31**

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 certification test covering this field is #10, "Political Science."

#PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1) ..... 3

Choose two core courses from the following:

- PLSC 210 Introduction to Political Analysis (3)
- PLSC 211 Introduction to Comparative Government (3)
- PLSC 212 Introduction to International Politics (3)
- PLSC 213 Introduction to Political Thought (3)
- PLSC 310 Methods of Political Research (3)

Choose five courses from two of the three following areas of concentration:

- Group I—American politics, public law, and administration*
- PLSC 202 State and Local Government (3)
  - PLSC 216 Municipal Government (3)
  - PLSC 270 Public Administration (3)
  - PLSC 301 The American Legal System (3)
  - PLSC 312 American Constitutional Law I (3)
  - PLSC 313 American Constitutional Law II (3)
  - PLSC 330 Urban Politics (3)
  - PLSC 332 Intergovernmental Relations and Federalism (3)
  - PLSC 335 Labor in American Politics (3)
  - PLSC 352 Politics of Government Budgeting (3)
  - PLSC 358 Parties, Elections, and Interest Groups (3)
  - PLSC 364 The Legislative Process (3)
  - PLSC 365 Women and Politics (3)
  - PLSC 380 The American Presidency (3)
  - PLSC 381 Public Policy Analysis (3)
  - PLSC 385 Judicial Process and Behavior (3)

*Group II—Comparative politics and international relations*

- PLSC 221 Vietnam (3)
- PLSC 222 War and Peace in the Nuclear Age (3)
- PLSC 311 Third World Politics (3)
- PLSC 327 American Foreign Policy Process (3)
- PLSC 341 International Law (3)
- PLSC 342 International Organizations (3)
- PLSC 354 Government and Politics of Canada (3)
- PLSC 361 Russian Politics in Transition (3)
- PLSC 367 Contemporary Political Systems of Latin America (3)
- PLSC 371 Government and Politics of the Middle East (3)
- PLSC 372 Government and Politics of Sub-Saharan Africa (3)
- PLSC 374 Asian Political Systems (3)
- PLSC 462 Russian Foreign Relations (3)
- PLSC 467 Advanced International Relations (3)

*Group III—Political theory and methods*

- PLSC 308 Political Violence and Revolution (3)
- PLSC 359 Public Opinion and Political Learning (3)
- PLSC 382 Politics and the 21st Century (3)
- PLSC 418 20th-Century Political Theory (3)
- PLSC 420 Democracy and Power (3)
- PLSC 422 American Political Theory (3)

**Total:** ..... 24 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the major. In order to avoid taking excess hours, stu-

dents are advised to take these courses, or approved substitutes from another institution, as part of the general education requirements.

## Preprofessional Program in Prelaw

### ISIS major code: PL04

Most law schools require a bachelor's degree and evidence of potential for law school as measured by grade point average and the results of the Law School Admission Test (LSAT). In addition, most law school admission officers emphasize the importance of a broad academic background and the development of analytical and communication skills.

The Political Science Department provides counseling for prelaw students, LSAT registration, and application materials and catalogs from many law schools throughout the country.

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

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

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

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

## Political Science Courses

**PLSC 112 American Government** 3 hrs  
A study of the institutions and processes of American national government. Includes critical comparisons with major foreign governmental systems. Satisfies the political science requirement of all curricula. *Not open to those with credit in PLSC 113.*

**PLSC 113 American Government Honors** 3 hrs  
An enhanced approach to the study of the institutions and processes of American national government. Includes critical comparisons with major foreign governmental systems. Satisfies the political science requirement of all curricula. *Not open to those with credit in PLSC 112.*

**PLSC 177/178/179 Special Topics** 1/2/3 hrs  
An examination of a topic in political science not normally covered in the curriculum, in which the distinctive concerns of political science are emphasized. Students may elect this course several times, provided different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.  
*Prereq: Department permission.*

**PLSC 202 State and Local Government** 3 hrs  
A study of the forms and functions of state and local governments with special emphasis on the government of Michigan. Especially valuable for teachers of social studies in senior and junior high schools.  
*Prereq: PLSC 112/PLSC 113, or department permission.*

**PLSC 210 Introduction to Political Analysis** 3 hrs  
A study of the conceptual and analytical foci of political science. Consideration is given to micro-level analysis of personality, attitudes, socialization, and roles, and to macro-level analysis of group theory, decision making, systems and communications.  
*Prereq: PLSC 112/PLSC 113.*

**PLSC 211 Introduction to Comparative Government** 3 hrs  
Using a comparative focus, identifies important similarities and differences in the structure and the behavior of foreign political systems, principally, but not exclusively, European.  
*Prereq: PLSC 112/PLSC 113.*

**PLSC 212 Introduction to International Politics** 3 hrs  
The fundamentals of great-power politics, the impact of efforts at international organization.  
*Prereq: PLSC 112/PLSC 113.*

**PLSC 213 Introduction to Political Thought** 3 hrs  
Selections from major theorists are used to examine different approaches to perennial issues such as justice, liberty, equality, legitimacy, and political order.  
*Prereq: PLSC 112/PLSC 113.*

**PLSC 216 Municipal Government** 3 hrs  
A study of forms and functions of municipal government.  
*Prereq: PLSC 112/PLSC 113.*

**PLSC 221 Vietnam** 3 hrs  
This course will be a political-military look at the Vietnam War from its beginnings in the 1940s to its climax in 1975. A brief look at the parallels with other wars (The Persian Gulf, etc.) and the aftermath will be included. The course will include the PBS videotapes of *Vietnam: A History*.  
*Prereq: PLSC 112/PLSC 113.*

**PLSC 222 War and Peace in the Nuclear Age** 3 hrs  
This course will be a study of the history of atomic weapons and the struggle to control them from 1945 to 1989. While concentrating most on the United States, it will include the Soviet Union, China and western Europe. It will also examine the personalities involved and attempt to assess the impact they had on the struggle for arms control.  
*Prereq: PLSC 112/PLSC 113.*

**PLSC 270 Public Administration** 3 hrs  
The nature of public administration; problems connected therewith—direction and organization; recruitment, training, and promotion of personnel; maintenance of loyalty and efficiency.  
*Prereq: PLSC 112/PLSC 113.*

**PLSC 277/278/279 Special Topics** 1/2/3 hrs  
An examination of a topic in political science not normally covered in the curriculum, in which the distinctive concerns of political science are emphasized. Students may elect this course several times, provided different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.  
*Prereq: PLSC 112/PLSC 113.*

**PLSC 297/298/299 Independent Study** 1/2/3 hrs  
Approved studies on an individual basis in areas in which the department does not offer formal courses.  
*Prereq: PLSC 112/PLSC 113.*



- PLSC 301 The American Legal System** 3 hrs  
A survey of various substantive components of the American system of law and its function in a democratic society. Special emphasis is placed upon problems of law enforcement, legal agencies, and the processes involved in the administration of criminal justice.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 308 Political Violence and Revolution** 3 hrs  
A cross-national examination of political violence and revolution. Covers distinctions in types of political violence; examines ideological arguments on violence and revolution; examines case studies; and the impact of political, biological, psychological, and sociological factors that have been associated with violent outbreaks cross-nationally.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 310 Methods of Political Research** 3 hrs  
Acquaints students with philosophic and methodological problems and analytic techniques in the study of politics.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 311 Third World Politics** 3 hrs  
This course is designed to increase student awareness and understanding of political development within third world nations. The colonial legacy and current sociopolitical conditions are investigated in order to determine how these forces influence public policy making.  
*Prereq: PLSC 112/PLSC 113 and PLSC 212.*
- PLSC 312 American Constitutional Law I** 3 hrs  
The environment of judicial decision making will be ascertained through an investigation of the politics, procedures, and personalities of the Supreme Court. The impact of the court upon the development and operation of the American system of government will be assessed through an examination of leading court decisions. May be taken as a two-semester sequence, or elected independently.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 313 American Constitutional Law II** 3 hrs  
The environment of judicial decision making will be ascertained through an investigation of the politics, procedures, and personalities of the Supreme Court. The impact of the court upon the development and operation of the American system of government will be assessed through an examination of leading court decisions. May be taken as a two-semester sequence, or elected independently.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 315 Consumer Law and Politics** 3 hrs  
A study of the politics of the consumer movement; executive, legislative, and judicial responses to consumer demands at the federal, state, and local levels. Investigation of the body of legislation and court decisions that affect the consumer in the market place.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 327 American Foreign Policy Process** 3 hrs  
An introduction to the formulation and execution of American foreign policy, including consideration of the role of public opinion, the press, interest groups, Congress, the president, deterrence theory, and decision making in crisis situations.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 330 Urban Politics** 3 hrs  
An examination of the urban political environment in the United States; structure, processes, power relationships, ethnic considerations, fiscal constraints, and select, specific policy areas are considered.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 332 Intergovernmental Relations and Federalism** 3 hrs  
A study of intergovernmental relations in the United States focusing on recent trends in the federal system. Examines significant developments and alternatives in shared governmental responsibilities, such as metropolitan reorganization, grant programs and regionalism.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 334 Personnel Administration in Government** 3 hrs  
An examination of the basic personnel management practices of public bureaucracies. Topics include the development of the merit system and the civil service; public sector requirements for hiring, promotion, pay, and benefits; discipline and grievance handling; the development and impact of public-sector collective bargaining.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 335 Labor in American Politics** 3 hrs  
An examination of the role played by American labor as a political pressure group and as an agent of voter mobilization; American labor voting patterns; the political impact of labor organization on the civil service; American role in international union affairs.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 341 International Law** 3 hrs  
An introduction to the principles and practices of public international law. The origin and development and the nature and sources of international law. Special emphasis will be placed upon the legal problems of peace and war and the future perspectives of international law in the relations of nations.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 342 International Organizations** 3 hrs  
The structure and functions of international organizations. Collective security, disarmament, and the pacific settlement of disputes will be examined. Organizations emphasized will be the League of Nations, the United Nations, the European Common Market and OPEC.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 352 Politics of Government Budgeting** 3 hrs  
An analysis of the political significance and the procedures of governmental budgeting in the United States.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 354 Government and Politics of Canada** 3 hrs  
Analysis of the Canadian political system in terms of historical background; political environment; constitutional structure; legislative, executive, and judicial processes; political parties and pressure groups; public opinion and voting behavior; political problems and trends.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 358 Parties, Elections, and Interest Groups** 3 hrs  
The organization, operation, and function of American political parties and their impact on the American political system. The impact of interest groups and elections is also stressed.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 359 Public Opinion and Political Learning** 3 hrs  
The nature, formation, measurement, and role of public opinion; the structure of control and the performance of the mass media; the nature of techniques, strategies, and effects of propaganda.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 361 Russian Politics in Transition** 3 hrs  
Government and politics in the former USSR: the rise and decline of communist power, party and government structures, elements of political culture, and the nature of current system modification.  
*Prereq: PLSC 112/PLSC 113.*

- PLSC 364 The Legislative Process** 3 hrs  
A study of the agencies, procedures, and influences in the formation of public policy by Congress, state legislatures and administrative agencies.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 365 Women and Politics** 3 hrs  
A study of the role of women in American politics as voters, activists, and candidates, with consideration of how the political behavior of women relates to their economic, social and religious roles. Comparisons are made with select European and Asian political systems.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 367 Contemporary Political Systems of Latin America** 3 hrs  
A study of the governmental structure and the nature of political activity in select Latin-American nations, with an emphasis on issues such as urbanization, military influence, students, labor and the development of political parties.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 371 Government and Politics of the Middle East** 3 hrs  
The Middle East as a case study in the field of comparative politics, European colonial policies, nationalist movements, and politics of independent states.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 372 Government and Politics of Sub-Saharan Africa** 3 hrs  
Africa as a case study in the field of comparative politics, tribal political systems, European colonial policies, nationalist movements, multiracial conflict, and politics of independent states in sub-Saharan Africa.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 374 Asian Political Systems** 3 hrs  
A study of the politics and government of China, Japan, the mainland Southeast Asian states, Indonesia and India.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 377/378/379 Special Topics** 1/2/3 hrs  
An examination of a topic in political science not normally covered in the curriculum, in which the distinctive concerns of political science are emphasized. Students may elect this course several times, provided different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 380 The American Presidency** 3 hrs  
A study of executive power, emphasizing the contemporary presidential role and how it has evolved, the politics of candidate choice, the personal qualities and political styles of recent presidents, and the array of formal and informal institutions constituting the modern presidency.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 381 Public Policy Analysis** 3 hrs  
An advanced course in public administration dealing with modern administrative techniques, budget analysis, the politics of resource allocation, and regulatory problems.  
*Prereq: PLSC 270.*
- PLSC 382 Politics and the 21st Century** 3 hrs  
A study of the political and public policy directions of the future. Consideration will be given to worldwide political developments and alternative political futures as affected by accelerating sociopolitical and technological change.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 385 Judicial Process and Behavior** 3 hrs  
A study of the judicial process and behavior in the United States with emphasis on analysis of policy making by the courts. Federal judicial structures and functions, decision making procedures and political ideology, and judicial review.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 387 Cooperative Education in Political Science** 3 hrs  
Four to six months of full-time employment in the public sector intended to provide practical experience in government, politics or administration. The program consists of two directed work experiences (PLSC 387 and PLSC 487) alternating with full-time attendance at the University. Applications of credit toward political science programs subject to department approval. Graded credit/no credit.  
*Prereq: Junior standing. Major in political science, public administration, or public law and government. Departmental recommendation required.*
- PLSC 410 Political Science in Fiction** 3 hrs  
A discussion and analysis of political theories, institutions, and practices utilizing a storehouse of insightful and articulate materials not normally tapped in traditional political science courses: the works of essayists, aphorists, dramatists, pamphleteers, poets and novelists.  
*Prereq: Political science major or minor. At least nine hours of political science course work completed. Junior or senior standing or department permission.*
- PLSC 412 Comparative Legal Systems** 3 hrs  
Analysis of fundamental elements of the common law, the civil law, socialist laws and other legal traditions, and a comparison of the legal systems of select foreign countries.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 418 20th-Century Political Theory** 3 hrs  
A comparative study of recent political theories and ideologies including democracy, socialism, communism and fascism. The analysis includes modern psychological and sociological theories as they affect political thought.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 420 Democracy and Power** 3 hrs  
A study of the ideals and limitations of democracy. Examines values such as consent, equality, rights, citizenship, and the public interest and the limitations posed by authority, coercion, class conflict, distribution of wealth, and the state.  
*Prereq: PLSC 210/PLSC 213, or PHIL 225.*
- PLSC 422 American Political Theory** 3 hrs  
A concise survey of American political thought. The origins, growth, and present state of American political ideologies will be examined.  
*Prereq: PLSC 112/PLSC 113.*
- PLSC 431 Theories of Public Organization** 3 hrs  
An introduction to theories of organization as related to public bureaucracies in a democratic political context.  
*Prereq: PLSC 270 or department permission.*
- PLSC 450 Managing Public Safety Agencies** 3 hrs  
Analysis of public-sector management elements, including planning, organizing, leading, controlling, and communicating, presented in the context of, and applied to, internal police/fire and corrections administration.  
*Prereq: PLSC 270 and PLSC 431, or department permission.*
- PLSC 451 Seminar in Public Safety Administration** 3 hrs  
A capstone seminar in the public safety administration concentration; integrates previous course work in law, management, and politics by focusing on contemporary problems and issues in public safety opera-

tions, including attention to leadership, organizational conflict, and resource allocation/utilization; utilizes a case approach.

*Prereq: Senior standing and department permission.*

**PLSC 456 Criminal Law I** 3 hrs

A study of criminal law currently in use in the United States with emphasis upon the way its basic concepts function; its principal components and problems central to its impact upon the political system.

*Prereq: PLSC 112/PLSC 113.*

**PLSC 462 Russian Foreign Relations** 3 hrs

An analytical and historical examination of Soviet foreign policies since 1917—their sources, character, objectives and periodization.

*Prereq: PLSC 112/PLSC 113.*

**PLSC 467 Advanced International Relations** 3 hrs

The course will explore, through case studies, the ways in which ideas, cultural differences, and different political systems combine to produce the international politics of today. Special attention will be paid to the United States in this process as well as the role of economics and international organization. *Limit: 25 students.*

*Prereq: PLSC 212 and PLSC 327.*

**PLSC 470 Seminar in Political Science** 3 hrs

Examination and utilization of research techniques in the preparation of a major seminar paper in political science, public administration, or public law and government.

*Prereq: PLSC 112/PLSC 113.*

**PLSC 477/478/479 Special Topics** 1/2/3 hrs

An examination of a topic in political science not normally covered in the curriculum, in which the distinctive concerns of political science are emphasized. Students may elect this course several times, provided different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.

*Prereq: PLSC 112/PLSC 113.*

**PLSC 480 Field Seminar in Political Science/Public Administration** 3 hrs

Designed to help students relate their field experience to some aspect of political science or public administration.

*Prereq: Department permission.*

**PLSC 486/488/489 Internship in Political Science/Public Administration** 3/6/9 hrs

Extends classroom learning through practical experience with legislative, administrative, and other public-sector agencies at all levels of government. Open to majors and minors in political science and public administration.

*Prereq: Department permission.*

**PLSC 487 Cooperative Education in Political Science** 3 hrs

Four to six months of full-time employment in the public sector intended to provide practical experience in government, politics or administration. The program consists of two directed work experiences (PLSC 387 and PLSC 487) alternating with full-time attendance at the University. Applications of credit toward political science programs subject to department approval. Graded credit/no credit.

*Prereq: Senior standing, PLSC 387 or departmental recommendation required.*

**PLSC 497/498/499 Independent Study** 1/2/3 hrs

Advanced study on an individual basis in areas in which the department does not offer formal courses. Normally restricted to political science majors.

*Prereq: Senior standing and department permission.*

## Psychology

Web site: [www.emich.edu/public/psych/index.htm](http://www.emich.edu/public/psych/index.htm)

**James T. Todd**  
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**Professors:** Barbara E. Brackney, Jeffrey L. Dansky, Dennis J. Delprato, Barry A. Fish, Monroe P. Friedman, Norman G. Gordon, V. Kay Hodges, Stuart A. Karabenick, John R. Knapp, James D. Roff, Kenneth W. Rusiniak, Alida S. Westman, Zakhour I. Youssef

**Associate Professors:** Marilyn K. Bonem, Carol R. Freedman-Doan, John L. McManus, James T. Todd, Silvia von Kluge

**Assistant Professors:** Flora Hoodin, John W. McHoskey, Nina A. Nabors

Psychology, as a discipline, is concerned with the experience, behavior, needs, desires and potentialities of human beings. It is basic to many career fields and to any life pursuit where other human beings are encountered.

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.

**Degree:**

Bachelor of Science

**Programs of Study:**

**Major:**

Psychology

Psychology for secondary education

**Minor:**

Psychology

Psychology for secondary, K-12, and special education—secondary

Advising is available to all students and can be obtained from any department faculty member. It is recommended that students see a faculty member specializing in the area of the student's interest if graduate study is anticipated. Information may be obtained in the department office.

Advising coordinator: Marilyn K. Bonem

Graduate study leads to a master's degree in psychology with programs in general psychology, clinical psychology and clinical behavioral psychology. These programs are described in the graduate catalog.

## Psychology Major

**ISIS major code: PS01**

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.

**Required courses:** ..... 13-14

#PSY 101/#PSY 102 General Psychology (satisfies general education requirement II.2 or II.3) ..... 3/4

PSY 205 Quantitative Methods in Psychology ..... 3

PSY 301 Introductory Experimental Psychology ..... 4

PSY 453 History and Systems of Psychology ..... 3

**Restricted electives:** ..... 12

*Adjustment and personality*

One of: ..... 3

- PSY 360 Abnormal Psychology (3)
- PSY 451 Dynamics of Personality (3)

*Biological*

- One of: ..... 3
- PSY 357 Sensation and Perception (3)
- PSY 457 Physiological Psychology (3)
- PSY 458 Comparative Animal Behavior (3)

*Learning and motivation*

- One of: ..... 3
- PSY 304 Learning (3)
- PSY 356 Motivation and Emotion (3)

*Developmental and social*

- One of: ..... 3
- PSY 309 Social Psychology (3)
- PSY 321 Child Psychology (3)

**Electives:** ..... 4-5

Select four to five credits (enough to total 30 hours in psychology, including General Psychology), in consultation with an advising coordinator.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/psy/ugrad/major/psy.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/psy/ugrad/major/psy.html).

**Total:** ..... 30 hours

*#Advising note:* 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.

**Psychology Major**

Secondary Teacher Certification

**ISIS major code: PS31**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in psychology, certification code "CE," and, depending on the minor selected, endorsement in economics ("CA"), geography ("CB"), history ("CC"), political science ("CD"), sociology ("CF"), or social studies ("RX"). The certification test covering this field is #11, "Psychology."

**Teaching Major** ..... 30

- One of: (satisfies general education requirement II.2 or II.3) ..... 3-4
- #PSY 101 General Psychology (no laboratory) (3)
- #PSY 102 General Psychology (4)

- PSY 205 Quantitative Methods in Psychology ..... 3
- PSY 301 Introductory Experimental Psychology ..... 4
- PSY 453 History and Systems of Psychology ..... 3

*Adjustment and personality*

- One of: ..... 3
- PSY 360 Abnormal Psychology (3)
- PSY 451 Dynamics of Personality (3)

*Biological*

- One of: ..... 3
- PSY 357 Sensation and Perception (3)
- PSY 457 Physiological Psychology (3)
- PSY 458 Comparative Animal Behavior (3)

*Learning and motivation*

- One of: ..... 3
- PSY 304 Learning (3)
- PSY 356 Motivation and Emotion (3)

*Developmental and social*

- One of: ..... 3
- PSY 309 Social Psychology (3)
- PSY 321 Child Psychology (3)

Select four to five credits (enough to total 30 hours in psychology, including General Psychology), in consultation with an advising coordinator.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coa/psy/ugrad/major/psy\\_t.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coa/psy/ugrad/major/psy_t.html).

*#Advising note:* 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.

**Psychology Minor**

**ISIS minor code: PS01**

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

- One of: (satisfies general education requirement II.2 or II.3)
- #PSY 101 General Psychology (no laboratory) (3)
- #PSY 102 General Psychology (4)

**Electives:** ..... 16-17

Choose 16-17 credits in consultation with advising coordinator.

**Total:** ..... 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Psychology Minor**

Secondary, K-12, and Special Education-Secondary Teacher Certification (not available to social studies group majors)

**ISIS minor code: PS31**

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 certification test covering this field is #11, "Psychology."

- One of: (satisfies general education requirement II.2 or II.3) ..... 3-4
- #PSY 101 General Psychology (no laboratory) (3)
- #PSY 102 General Psychology (4)

Choose 16-17 credits in consultation with advising coordinator.

**Total:** ..... 20 hours

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Psychology Courses**

**PSY 101 General Psychology** ..... 3 hrs  
Principles, theories and methods evolving from the scientific analysis of behavior. This or PSY 102 is a prerequisite to all other courses. *Not open to those who have earned credit in PSY 102.*

**PSY 102 General Psychology** ..... 4 hrs  
Principles, theories and methods evolving from the scientific analysis of behavior. Laboratory demonstrations and experiments illustrating selected concepts. *Not open to those with credit in PSY 101.*

**PSY 177/178/179 Special Topics** ..... 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. *Prereq: PSY 101/PSY 102 and department permission.*



- PSY 203 Self-analysis and Control** 3 hrs  
Behavioral principles and techniques that can be applied to behavioral self-analysis and self-management. Student-initiated self-improvement projects encouraged.  
*Prereq: PSY 101/PSY 102.*
- PSY 205 Quantitative Methods in Psychology** 3 hrs  
Basic concepts and methods used in the analysis of psychological data. Methods of describing and drawing inferences from sets of data.  
*Prereq: PSY 101/PSY 102, and one of: MATH 118, MATH 119, MATH 120, MATH 121 or MATH 122.*
- PSY 207 Psychology of Adjustment** 3 hrs  
Systematic presentation of issues, concepts, principles and theories of human adjustment.  
*Prereq: PSY 101/PSY 102.*
- PSY 225 Psychology of Religion** 3 hrs  
The application of psychological theory, principles and method to the study of religious behavior. The relationships between religion and personality, health/pathology, social behavior and intense emotional experience.  
*Prereq: PSY 101/PSY 102.*
- PSY 240 Psychology of Sex** 3 hrs  
Survey of the psychological research concerned with human sexuality from a psychological point of view with an emphasis on research findings.  
*Prereq: PSY 101/PSY 102.*
- PSY 242 Psychology of Women** 3 hrs  
Theories and empirical research concerning personality development in females. Examination of the origins of the behavior of women.  
*Prereq: PSY 101/PSY 102.*
- PSY 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: PSY 101/PSY 102 and department permission.*
- PSY 301 Introductory Experimental Psychology** 4 hrs  
Design, control and measurement techniques employed in the scientific investigation of behavior; e.g., motivation, emotion, perception and learning.  
*Prereq: PSY 205.*
- PSY 304 Learning** 3 hrs  
Includes learning theories and empirical research as developed by Pavlov, Thorndike, Guthrie, Tolman, Hull, Skinner, Mowrer and others, plus select contemporary topics.  
*Prereq: PSY 301.*
- PSY 309 Social Psychology** 3 hrs  
The order and regularity underlying processes of human interaction. Motives and attitudes, social norms and roles, the socialization process, personality and group membership. The effect of group membership upon individual behavior. *Not open to those with credit in SOCL 308.*  
*Prereq: SOCL 105 and PSY 101/PSY 102.*
- PSY 321 Child Psychology** 3 hrs  
The development of human behavior from conception to adolescence. Analysis of developmental processes involved in cognition, socialization, emotion and personality, relying on research and theory; emphasis on developmental trends. *Not open to students in early elementary education curriculum.*  
*Prereq: PSY 101/PSY 102.*
- PSY 322 Psychology of Adolescence** 3 hrs  
An opportunity to formulate, examine and understand a comprehensive, balanced picture of the physical, mental, emotional, social, and ideological developments and adjustments during adolescence.  
*Prereq: PSY 101/PSY 102.*
- PSY 323 Psychology of Human Aging** 3 hrs  
Aging individuals in the context of their life span; the special problems of the aged in modern American society. Intellectual functioning, socialization and personality, environmental effects, and the problems of isolation and institutionalization.  
*Prereq: PSY 101/PSY 102.*
- PSY 340 Psychological Perspectives on Prejudice and Discrimination** 3 hrs  
The psychological processes underlying the phenomena of prejudice and discrimination. A review of materials on personality and development relevant to the practice of discrimination and to the experience of prejudice on the part of both minority and majority group individuals.  
*Prereq: PSY 101/PSY 102 and sophomore standing.*
- PSY 350 Environmental Psychology** 3 hrs  
The psychological effects of various environmental settings and configurations on human behavior. Select qualities of architectural spaces, urban environments and natural settings.  
*Prereq: PSY 101/PSY 102.*
- PSY 351 Industrial Psychology** 3 hrs  
Applications of psychological methods and principles to industrial problems.  
*Prereq: PSY 101/PSY 102, and junior or senior standing.*
- PSY 356 Motivation and Emotion** 3 hrs  
Review and analysis of theory and research in the areas of motivation and emotion.  
*Prereq: PSY 301.*
- PSY 357 Sensation and Perception** 3 hrs  
Analysis of the psychological literature relating to sensory and perceptual experience.  
*Prereq: PSY 301.*
- PSY 358 Cognitive Processes** 3 hrs  
A review of the theoretical and empirical developments concerned with cognitive processes, such as concept formation, memory and retrieval from memory, language acquisition, thought, problem solving, imagination, and creativity.  
*Prereq: Junior, senior or second bachelor's standing, PSY 205.*
- PSY 360 Abnormal Psychology** 3 hrs  
Modern theories of the origin of mental disorders and personality disturbances, nature and mechanism of the various forms of abnormal behavior, prevention and treatment, social significance of aberrations.  
*Prereq: PSY 101/PSY 102. Junior, senior or second bachelor's standing.*
- PSY 361 Psychotherapy** 3 hrs  
Survey of therapeutic systems and research on psychotherapy.  
*Prereq: PSY 360.*
- PSY 362 The Psychology of Stress and Relaxation** 3 hrs  
An introduction to the theoretical aspects of stress, stress reactions, stress assessment, and stress management and prevention.  
*Prereq: PSY 101/PSY 102.*
- PSY 365 Behavior Modification** 3 hrs  
For students in psychology, special education, social work, nursing and related fields. Techniques for coping with problem behaviors. Training in practical observation and recording procedures, program evaluation designs, and behavior change principles.  
*Prereq: PSY 101/PSY 102.*
- PSY 366 Health Psychology/Behavioral Medicine** 3 hrs  
The application of behavioral-science theory, principles, and techniques to understanding of health and illness, and to prevention, diagnosis, treatment, rehabilitation and health care delivery.  
*Prereq: PSY 101/PSY 102.*
- PSY 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: PSY 101/PSY 102 and department permission.*

- PSY 387 Cooperative Education in Psychology** 3 hrs  
Four months of full-time employment at an individual employer chosen to provide practical experience in the student's major field. The program consists of two work experiences (PSY 387 and PSY 487) alternating with full-time attendance at the University.  
*Prereq:* Two 300-level psychology courses and department permission.
- PSY 388 Psychology in the Field Setting** 2 hrs  
A practical work experience in a supervised mental health setting that integrates scholarly and practical aspects of psychology. Approximately three hours of field-work each week and completion of a journal of goals and experiences.  
*Prereq:* PSY 101/PSY 102, concurrent enrollment in a three-hour psychology class, and/or department permission.
- PSY 397/398/399 Individual Reading in Psychology** 1/2/3 hrs  
Supervised reading on psychological problems.  
*Prereq:* PSY 101/PSY 102, and prior department approval of a planned reading program.
- PSY 445 Consumer Psychology** 2 hrs  
A survey of psychological principles, theories and methodology relating to consumer behavior.  
*Prereq:* PSY 101/PSY 102.
- PSY 451 Dynamics of Personality** 3 hrs  
Physiological, psychological and cultural determinants of human personality; analysis of select theories of human personality.  
*Prereq:* PSY 101/PSY 102. Junior, senior or second bachelor's standing.
- PSY 453 History and Systems of Psychology** 3 hrs  
Historical development of modern psychological theories; contemporary systems, including functionalism, behaviorism, phenomenology, psychoanalysis and dynamic psychologies.  
*Prereq:* 12 hours of psychology and senior standing.
- PSY 457 Physiological Psychology** 3 hrs  
Analysis of the relationships among brain functions, physiological processes and behavior. Open to junior and senior science majors with department permission.  
*Prereq:* PSY 301. Recommended: BIOL 105 or ZOO 222.
- PSY 458 Comparative Animal Behavior** 3 hrs  
Modern solutions to the innate versus learned behavior controversy; species differences with respect to behavior and behavioral capacities.  
*Prereq:* PSY 301.
- PSY 460 Psychology of Film** 3 hrs  
The psychology of film and audience. Viewer psychology, presentation of psychology, family, violence and sexuality in film.  
*Prereq:* Junior standing and/or two courses in psychology.
- PSY 477/478/479 Special Topics** 1/2/3 hrs  
An examination of topics in psychology not covered in other department offerings. May be elected more than once, provided different topics are studied.  
*Prereq:* PSY 101/PSY 102, and department permission.
- PSY 487 Cooperative Education in Psychology** 3 hrs  
Four months of full-time employment at an individual employer chosen to provide practical experience in the student's major field. The program consists of two work experiences (PSY 387 and PSY 487) alternating with full-time attendance at the University.  
*Prereq:* PSY 387 and department permission.
- PSY 497/498/499 Individual Research in Psychology** 1/2/3 hrs  
Supervised investigation of psychological problems.  
*Prereq:* PSY 205 and department permission.

## Sociology, Anthropology and Criminology

Web site: [www.emich.edu/public/sac/home.html](http://www.emich.edu/public/sac/home.html)

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**Professors:** Gregg Barak, E. Liza Cerroni-Long, Patrick Easto, Allen S. Ehrlich, Stuart Henry, Lawrence Kersten, Mansoor Moaddel, Joseph H. Rankin, Barbara Richardson, Marie Richmond-Abbott, Karen Sinclair, Marcello Truzzi, Bruce I. Warren, Ira M. Wasserman, Jay Weinstein, Ronald Westrum,

**Associate Professors:** Anthony Troy Adams, Liqun Cao  
**Assistant Professors:** Barbara J. Bilge, Roger Kern, Paul Leighton, Denise Reiling

The department offers majors and minors in the disciplines of sociology, anthropology, and criminology and criminal justice, and participates in the social work curriculum, the major in area studies, and programs in gerontology, bilingual-bicultural education, and women's studies.

### Degrees:

Bachelor of Arts and Bachelor of Science

### Programs of Study

#### Curriculum:

Criminology and criminal justice

#### Majors:

Anthropology  
Sociology  
Sociology for secondary education

#### Minors:

Anthropology  
Criminology and criminal justice  
Sociology  
Sociology for secondary, K-12, and special education-secondary  
Interdisciplinary minors in Anthropology/Sociology:  
Health and illness studies  
Sociocultural perspectives on the family

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.

### Advising Coordinators:

Undergraduate: Ronald Westrum  
Graduate criminology and criminal justice: Paul Leighton  
Graduate sociology: Jay Weinstein

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.

## Anthropology Major

ISIS major code: SC02

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.

<b>Required courses:</b> .....	<b>18</b>
#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) .....	3
#ANTH 140 Introduction to Prehistoric Anthropology (satisfies general education requirement III.4) .....	3
#ANTH 200 Writing for Anthropology (satisfies general education requirement I.3) .....	3
ANTH 210 History of Anthropological Theory .....	3
ANTH 439 Seminar in Anthropological Theory .....	3
ANTH 441 Senior Seminar in Anthropology .....	3
<b>Restricted electives:</b> .....	<b>6</b>
Choose one of the following culture area courses: .....	3
#ANTH 233 Peoples and Cultures of Mexico (satisfies general education requirement III.4 and the cross- cultural/international studies requirement)	
#ANTH 236 Peoples and Cultures of Africa (satisfies general education requirement III.4 and the cross- cultural/international studies requirement)	
#ANTH 237 Indians of North America (satisfies general education requirement III.4 and the cross-cultural/ international studies requirement)	
#ANTH 245 Culture of Japan (satisfies general education requirement III.4 and the cross-cultural/international studies requirement)	
ANTH 248 Peoples and Cultures of the Pacific	
Choose one of the following methodology courses: .....	3
ANTH 345 Qualitative Methods	
ANTH 437 Kinship and Social Structure	
<b>Electives:</b> .....	<b>6</b>
Choose two anthropology courses, one of which must be at the 300 or 400 level.	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coa/sac/ugrad/major/anth.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coa/sac/ugrad/major/anth.html).

**Total:** ..... **30 hours**

*#Advising note:* 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.

## Curriculum in Criminology and Criminal Justice

**ISIS major code:** SC03

The Criminology and Criminal Justice curriculum provides students with a multidisciplinary understanding of crime and justice within the framework of broader social processes. This curriculum is a three-tiered structure composed of general education, a core curriculum, and selected concentrations. The typical student will move from general education to the core of the program and then into one of four specialized concentrations, where s/he will be introduced to courses on the principles and application of the chosen specialty.

The curriculum for general education includes introductory courses in the fundamental social science disciplines of sociology and psychology. The core of the curriculum consists of a number of related courses that will build a foundation of social science education emphasizing analytical and conceptual skills. The pivotal course is 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.

**Major in criminology and criminal justice:** ..... **69-70**

**Core requirements:** ..... **48-49**

*All of the following courses must be taken as part of the requirements for the Criminology and Criminal Justice curriculum:* ..... **12-13**

#PSY 101/#PSY 102 General Psychology (satisfies general education requirement II.2 or II.3) .....	3/4
#PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1) .....	3
#SOCL 105 Introductory Sociology (satisfies general education requirement III.3) .....	3
#SOCL 202 Social Problems (if #SOCL 105 is taken, satisfies general education requirement III.4) .....	3
<i>Criminology and criminal justice:</i> .....	<b>18</b>
CRM 300 Criminal Justice .....	3
CRM 301 Criminology .....	3
CRM 354 Juvenile Delinquency .....	3
CRM 370 White Collar Crime .....	3
SOCL 412/CRM 412 Law and Society .....	3
CRM 447 Advanced Criminology .....	3

*Research methods:* ..... **6**

*#SOCL 250 Social Statistics I (satisfies general education requirement I.4) .....	3
SOCL 304 Methods in Sociological Research .....	3
(Note: SOCL 341-SOCL 342 Quantitative Methods of Social Research I-II may be substituted for SOCL 250 and SOCL 304)	

*Sociology/Anthropology:* ..... **12**

#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) .....	3
Choose one: (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) .....	3
#SOCL 214/#ANTH 214 Racial and Cultural Minorities (3)	
#AAS 101 Introduction to African American Studies (3)	
SOCL 308 Social Psychology .....	3
SOCL 462 Complex Organizations .....	3

**Concentration:** ..... **21**

Students choose one of the following concentrations to fulfill their curriculum requirements.

<i>Concentration(1): Legal Studies</i>	
PHIL 355 Philosophy of Law .....	3
PLSC 456 Criminal Law I .....	3
Choose one: (satisfies general education requirement IV.3) .....	3
#PHIL 120 Introduction to Critical Reasoning (satisfies general education requirement IV.3) (3)	
#PHIL 130 Introduction to Logic (3)	
Choose one: .....	3
PLSC 301 The American Legal System (3)	
PLSC 364 The Legislative Process (3)	
PLSC 385 Judicial Process and Behavior (3)	
Choose three: .....	9
CRM 460 Criminal Law II (3)	
CRM 488 Field Internship in Criminology and Criminal Justice (3)	
LAW 293 Legal Environment of Business (3)	

- LAW 295 Legal Research (3)  
 LEGL 211 Introduction to Paralegalism and Legal Terminology (3)  
 LEGL 304 Legal Writing, Research, and Analysis I (3)  
 LEGL 305 Advanced Legal Writing, Research, and Analysis II (3)  
 LEGL 412 Court Rules, Forms, and Drafting Contracts (3)  
 CTAC 357 Interviewing as Communication (3)  
 PLSC 315 Consumer Law and Politics (3)  
 AAS 441 Law in the African American Experience (3)

*Concentration(2): Law Enforcement*

- CRM 431 Policing in Society ..... 3  
 PLSC 456 Criminal Law I ..... 3  
 SWRK 120 Introduction to Social Work Services and Professional Roles ..... 3  
 PSY 340 Psychological Perspectives on Prejudice and Discrimination ..... 3  
*Choose one:* ..... 3  
 PLSC 301 The American Legal System (3)  
 PLSC 385 Judicial Process and Behavior (3)  
*Choose two:* ..... 6  
 SOCL 306 The Urban Community (3)  
 SOCL 448 Collective Behavior (3)  
 CRM 460 Criminal Law II (3)  
 CRM 488 Field Internship in Criminology and Criminal Justice (3)  
 PSY 360 Abnormal Psychology (3)  
 PLSC 308 Political Violence and Revolution (3)  
 HLED 390 Drug Use and Abuse (3) or SWRK 431 Substance Abuse (3)  
 INDT 380 Planning and Decision-Making for Public Safety (3)  
 INDT 381 Public Relations and Public Safety (3)

*Concentration(3): Corrections*

- CRM 331 Introduction to Corrections ..... 3  
 SWRK 120 Introduction to Social Work Services and Professional Roles ..... 3  
 SWRK 463 Social Work Practice with Legal Offenders ..... 3  
 PSY 360 Abnormal Psychology ..... 3  
 CSAP 450 An Introduction: Counseling Concepts and Skills ..... 3  
*Choose two:* ..... 6  
 SOCL 402 Group Dynamics (3)  
 CRM 488 Field Internship in Criminology and Criminal Justice (3)  
 PSY 340 Psychological Perspectives on Prejudice and Discrimination (3)  
 PSY 365 Behavior Modification (3)  
 HLED 390 Drug Use and Abuse (3) or SWRK 431 Substance Abuse (3)  
 CTAC 357 Interviewing as Communication (3)  
 INDT 475 Managing Correctional Agencies and Facilities (3)

*Concentration(4): Management and Administration*

- CRM 331 Introduction to Corrections ..... 3  
 CRM 431 Policing in Society ..... 3  
 INDT 380 Planning and Decision-Making for Public Safety ..... 3  
 PLSC 270 Public Administration ..... 3  
*Choose three:* ..... 9-10  
 SOCL 451 Sociology of Work and Occupations  
 CRM 488 Field Internship in Criminology and Criminal Justice

- ANTH 345 Qualitative Methods  
 PSY 301 Introductory Experimental Psychology  
 PLSC 334 Personnel Administration in Government, PLSC 381 Public Policy Analysis, PLSC 456 Criminal Law I  
 MGMT 202 Business Communication, MGMT 386 Organizational Behavior and Theory  
 LAW 403 Employment Law  
 SWRK 470 Supervising Staff and Volunteers  
 INDT 435 Incident Command, INDT 475 Managing Correctional Agencies and Facilities  
 CTAC 357 Interviewing as Communication

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/coa/sac/ugrad/major/crim.html](http://www.emich.edu/public/catalogs/current/afac/colleges/coa/sac/ugrad/major/crim.html).

*#Advising note:* 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.

## Sociology Major

### ISIS major code: SC01

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.

### Required courses: ..... 18

- #SOCL 105 Introductory Sociology (satisfies general education requirement III.3) ..... 3  
 #ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) ..... 3  
 #SOCL 250 Social Statistics I (satisfies general education requirement I.4) ..... 3  
 SOCL 304 Methods in Sociological Research ..... 3  
 SOCL 308 Social Psychology ..... 3  
 SOCL 403 Modern Sociological Theory ..... 3

### Restricted electives: ..... 6

- Choose two:*  
 SOCL 306 The Urban Community (3)  
 SOCL 307 Industrial Sociology (3)  
 SOCL 310 Contemporary American Class Structure (3)  
 SOCL 462 Complex Organizations (3)  
 SOCL 405 Senior Seminar in Sociology (3)

### Electives: ..... 6

Choose from courses in sociology, anthropology, criminology or social work. Courses taken in social work, criminology or anthropology as elective credit for the sociology major must be at the 300 level or above.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/coa/sac/ugrad/major/soc.html](http://www.emich.edu/public/catalogs/current/afac/colleges/coa/sac/ugrad/major/soc.html).

### Total: ..... 30 hours

*#Advising note:* 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.



## Sociology Major

### Secondary Teacher Certification

ISIS major code: SC31

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in sociology, certification code "CF," and, depending on the minor selected, endorsement in economics ("CA"), geography ("CB"), history ("CC"), political science ("CD"), psychology ("CE"), or social studies ("RX"). The certification test covering this field is #12, "Sociology."

<b>Teaching Major</b> .....	<b>30</b>
#SOCL 105 Introductory Sociology (satisfies general education requirement III.3) .....	3
#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) .....	3
#SOCL 250 Social Statistics I (satisfies general education requirement I.4) .....	3
SOCL 304 Methods in Sociological Research .....	3
SOCL 308 Social Psychology .....	3
SOCL 403 Modern Sociological Theory .....	3
Two of: .....	6
SOCL 306 The Urban Community (3)	
SOCL 307 Industrial Sociology (3)	
SOCL 310 Contemporary American Class Structure (3)	
SOCL 405 Senior Seminar in Sociology (3)	
SOCL 462 Complex Organizations (3)	
Two courses from sociology, anthropology (at the 300 level or above), or social work (at the 300 level or above) .....	6

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/sac/ugrad/major/soc\\_t.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/sac/ugrad/major/soc_t.html).

*#Advising note:* 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.

## Anthropology Minor

ISIS minor code: SC02

<b>Required courses:</b> .....	<b>15</b>
#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) .....	3
#ANTH 140 Introduction to Prehistoric Anthropology (satisfies general education requirement III.4) .....	3
ANTH 210 History of Anthropological Theory .....	3
One 200-level culture-area course (see list above) .....	3
One course at the 300 or 400 level .....	3
<b>Electives:</b> .....	<b>5</b>
Choose courses for five credits in anthropology.	
<b>Total:</b> .....	<b>20 hours</b>

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Criminology/Criminal Justice Minor

ISIS minor code: SC01

<b>Required core courses:</b> .....	<b>9</b>
CRM 300 Criminal Justice .....	3
CRM 301 Criminology .....	3
PLSC 301 The American Legal System .....	3
<b>Restricted criminology electives:</b> .....	<b>6</b>
Choose two:	
CRM 331 Introduction to Corrections (3)	
CRM 354 Juvenile Delinquency (3)	
CRM 370 White Collar Crime (3)	
CRM 412/SOCL 412 Law and Society (3)	
CRM 460 Criminal Law II (3)	
CRM 431 Policing in Society (3)	
<b>Restricted social science electives:</b> .....	<b>6</b>
Choose two:	
PLSC 308 Political Violence and Revolution (3)	
PHIL 355 Philosophy of Law (3)	
PSY 360 Abnormal Psychology (3)	
HLED 390 Drug Use and Abuse (3)	
PLSC 412 Comparative Legal Systems (3)	
SWRK 431 Substance Abuse (3)	
PLSC 456 Criminal Law I (3)	
SOCL 462 Complex Organizations (3)	

**Total:** ..... **21 hours**

## Health and Illness Studies Interdisciplinary Minor

ISIS minor code: SC04

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.

<b>Required courses:</b> .....	<b>15</b>
#SOCL 105 Introductory Sociology (satisfies general education requirement III.3) .....	3
#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) .....	3
SOCL 311 Social Gerontology .....	3
SOCL 312 Medical Sociology .....	3
ANTH 329 Medical Anthropology .....	3
<b>Electives:</b> .....	<b>6</b>
<b>Total:</b> .....	<b>21 hours</b>

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

## Sociology Minor

ISIS minor code: SC03

<b>Required courses:</b> .....	<b>14-15</b>
#SOCL 105 Introductory Sociology (satisfies general education requirement III.3) .....	3
#ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) .....	3
Sociology or criminology courses at the 300 level or above .....	8-9

**Electives:** ..... 6  
 Any course in anthropology counted toward elective credit for the sociology minor must be at the 300 level or above. Social work courses may not be counted toward the sociology minor.

**Total:** ..... 20-21 hours

#*Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Sociocultural Perspectives on the Family Interdisciplinary Minor

ISIS minor code: SC05

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
- #ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) ..... 3
  - ANTH 309 Culture and Personality ..... 3
  - #SOCL 105 Introductory Sociology (satisfies general education requirement III.3) ..... 3
  - SOCL 204 Marriage and Family ..... 3
  - SOCL 303 Sociology of Childhood and Youth ..... 3
  - #SOCL 344/#WMST 344 Sociology of Gender (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) ..... 3
  - SOCL 450 The Family ..... 3

**Total:** ..... 21 hours

#*Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Sociology Minor

Secondary, K-12, and Special Education-Secondary Teacher Certification (not available to social studies group majors)

ISIS minor code: SC33

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in sociology, certification code "CF." The certification test covering this field is #12, "Sociology."

- #SOCL 105 Introductory Sociology (satisfies general education requirement III.3) ..... 3
- #ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3) ..... 3
- Eight hours of sociology or criminology courses at the 300 level or above ..... 8

\*Six hours of electives. Any course in anthropology must be at the 300 level or above ..... 6

**Total:** ..... 20 hours

\**Social work courses may not be counted.*

#*Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

### Anthropology Courses

**ANTH 135 Introduction to Cultural Anthropology** ..... 3 hrs  
 Man's adaptation to natural and cultural environments focusing upon primitive and nonwestern societies. The basic institutions of human society such as kinship, religion, law, politics and economics.

**ANTH 140 Introduction to Prehistoric Anthropology** ..... 3 hrs  
 A survey of the evolution of human societies using materials from primate studies, early man, and archeological findings.  
*Prereq:* ANTH 135.

**ANTH 150 Introductory Archeology** ..... 3 hrs  
 A general survey of the field of archeology; the methodologies and analyses employed in the study of prehistoric cultures.  
*Prereq:* ANTH 135.

**ANTH 177/178/179 Special Topics** ..... 1/2/3 hrs  
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq:* Department permission.

**ANTH 200 Writing for Anthropology** ..... 3 hrs  
 This course will teach students the necessary writing and research skills for anthropology. Students will also learn how to use library resources for anthropological research.  
*Prereq:* Sophomore, junior, or senior standing. ANTH 135, ENGL 121, and one additional anthropology course at the 100, 200 or 300 level.

**ANTH 210 History of Anthropological Theory** ..... 3 hrs  
 A survey of various theoretical approaches within the field of cultural anthropology. The course will span the period from the mid-19th century to the present, covering theoretical perspectives that have dominated European and American schools of anthropology.  
*Prereq:* ANTH 135.

**ANTH 214 Racial and Cultural Minorities** ..... 3 hrs  
 Racial and cultural minorities in the modern world with particular references to the black and Hispanic, and European and Oriental immigrants in the United States; racial myths, doctrines and movements; conflict and accommodation of majority and minority peoples; and proposed solutions of ethnic problems.  
*Prereq:* SOCL 105 or ANTH 135.

**ANTH 233 Peoples and Cultures of Mexico** ..... 3 hrs  
 A regional, historical and topical survey of Mexican cultures.  
*Prereq:* ANTH 135.

**ANTH 236 Peoples and Cultures of Africa** ..... 3 hrs  
 A regional, historical and topical survey of African cultures.  
*Prereq:* ANTH 135.

- ANTH 237 Indians of North America** 3 hrs  
A regional, historical and topical survey of aboriginal North American cultures.  
*Prereq: ANTH 135 or department permission.*
- ANTH 245 Culture of Japan** 3 hrs  
A historical and topical survey of Japanese culture.  
*Prereq: ANTH 135 or department permission.*
- ANTH 248 Peoples and Cultures of the Pacific** 3 hrs  
A regional, historical and topical survey of aboriginal Pacific cultures.  
*Prereq: ANTH 135.*
- ANTH 277/278/279 Special Topics** 1/2/3 hrs  
An examination of topics in anthropology not normally covered in the curriculum. Students may elect this course several times, provided different topics are studied.  
*Prereq: ANTH 135.*
- ANTH 309 Culture and Personality** 3 hrs  
An analysis of the manner in which group and cultural factors influence the growth and change of personality. The impact of personality types on group life. *Not open to those with credit in SOCL 309.*  
*Prereq: SOCL 105 or ANTH 135 and PSY 101.*
- ANTH 329 Medical Anthropology** 3 hrs  
Ways in which various cultures define, explain, and treat physical and psychic illness. Different approaches to curing including witchcraft, sorcery, spiritual and psychic healing, and the use of hallucinogens compared with contemporary medical practices.  
*Prereq: ANTH 135 or department permission.*
- ANTH 330 Anthropology of Law and Politics** 3 hrs  
Comparative study of political systems in primitive and peasant societies, local-level politics, government and law; examined from an anthropological perspective.  
*Prereq: ANTH 135 and sophomore standing.*
- ANTH 336 Social and Cultural Change** 3 hrs  
A survey of the theories and problems of change in developing and advanced societies. *Not open to those with credit in SOCL 336.*  
*Prereq: ANTH 135.*
- ANTH 338 Anthropology of Religion** 3 hrs  
The anthropological study of religious belief and ritual in primitive and peasant societies.  
*Prereq: ANTH 135 and sophomore standing.*
- ANTH 340 Language and Culture** 3 hrs  
A study of the relation of language to social behavior and modes of thought in unilingual and multilingual speech communities.  
*Prereq: ANTH 135 or LING 201 or LNGE 223.*
- ANTH 345 Qualitative Methods** 3 hrs  
A review and examination of social science research methods that entail fieldwork, participant observation, naturalistic experimentation, and the analysis of cultural data. *Not open to those with credit in SOCL 345.*  
*Prereq: Nine hours in anthropology or department permission.*
- ANTH 355 Anthropology of Women** 3 hrs  
The role of women in diverse cultural contexts. Theories dealing with the position of women. Life histories of women constitute the basic reading in the course.  
*Prereq: ANTH 135.*
- ANTH 377/378/379 Special Topics** 1/2/3 hrs  
An examination of topics in anthropology not normally covered in the curriculum in which the distinctive perspective and methodology of anthropology are emphasized. Students may elect this course several times, provided different topics are studied.  
*Prereq: ANTH 135.*
- ANTH 387 Cooperative Education in Anthropology** 3 hrs  
Practical experience in industrial, business or government settings that provides job skills. Credit/no credit.  
*Prereq: 12 hours of anthropology, six of which must be at the 300 level or above.*
- ANTH 437 Kinship and Social Structure** 3 hrs  
The comparative study of kinship and social structure traced from primitive through complex societies.  
*Prereq: ANTH 135, ANTH 210 and one additional ANTH course at the 300 level. Junior standing.*
- ANTH 439 Seminar in Anthropological Theory** 3 hrs  
An intensive examination of theoretical approaches to the study of cultural phenomena. Emphasis will be placed upon the critical reading of primary source materials seminal to the development of various theoretical stances within the discipline of anthropology. This course will be organized around written and oral presentations by students.  
*Prereq: Four courses in anthropology including ANTH 140, ANTH 200, ANTH 210 and senior standing.*
- ANTH 441 Senior Seminar in Anthropology** 3 hrs  
An intensive study of specific subdisciplinary issues in the context of current anthropological theory and ethnographic practice.  
*Prereq: ANTH 135, ANTH 140, ANTH 200, ANTH 210 and ANTH 439. ANTH 345 or ANTH 437, and one additional ANTH course at the 200 level. Senior anthropology majors only.*
- ANTH 477/478/479 Special Topics** 1/2/3 hrs  
An examination of topics in anthropology not normally covered in the curriculum in which the distinctive perspective and methodology of anthropology are emphasized. Students may elect this course several times, provided different topics are studied.  
*Prereq: ANTH 135.*
- ANTH 487 Cooperative Education in Anthropology** 3 hrs  
Practical experience in industrial, business, or government settings that provides job skills. Credit/no credit basis.  
*Prereq: ANTH 387.*
- ANTH 497/498/499 Individualized Reading and Research in Anthropology** 1/2/3 hrs  
Directed reading and research on problems within the field of anthropology.  
*Prereq: ANTH 135 and department permission.*

### Criminology Courses

- CRM 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: SOCL 105.*
- CRM 300 Criminal Justice** 3 hrs  
A critical view of the entire spectrum of criminal justice. The police, courts, and corrections studied as interrelated institutions in the process of defining criminals.  
*Prereq: SOCL 105.*
- CRM 301 Criminology** 3 hrs  
The nature, incidence and prevalence of crime. Theory of crime and delinquency causation.  
*Prereq: SOCL 105.*

- CRM 331 Introduction to Corrections** 3 hrs  
An examination of corrections/punishment in contemporary society, its historical development, structural dependency, relationship to the system of justice, and problems of effectiveness.  
*Prereq: CRM 300.*
- CRM 354 Juvenile Delinquency** 3 hrs  
The nature, incidence and measurement of juvenile delinquency; theories and causation; juvenile justice philosophies and treatment methods.  
*Prereq: SOCL 105.*
- CRM 370 White Collar Crime** 3 hrs  
An examination of the definitions, laws, causes and policy responses that shape crimes by corporations, government agencies, professionals and others engaged in legitimate occupations.  
*Prereq: SOCL 105.*
- CRM 377/378/379 Special Topics** 1/2/3 hrs  
A single topic is covered each semester, selected as the interest and/or problems change. Students may elect a special topics course several times, provided different topics are studied, but only twice for credit toward a major or minor in criminology.  
*Prereq: SOCL 105.*
- CRM 387 Cooperative Education in Criminal Justice** 3 hrs  
Practical experience in agencies or government settings to provide job skills. Credit/no credit.  
*Prereq: CRM 300, department permission, and junior standing.*
- CRM 412 Law and Society** 3 hrs  
Law as a social and cultural product; the interrelationships between law and social institutions. *Not open to those with credit in SOCL 412.*  
*Prereq: SOCL 105 and CRM 300.*
- CRM 431 Policing in Society** 3 hrs  
The social and historical origin of the police; police culture, role and career; police in the legal system; police discretion; ethical development of police; police and the community; police organization and community control.  
*Prereq: CRM 300.*
- CRM 447 Advanced Criminology** 3 hrs  
An intensive analysis of select problems in criminology; the application of criminology to policies and programs of crime prevention and control.  
*Prereq: CRM 300 and CRM 301.*
- CRM 460 Criminal Law II** 3 hrs  
The social, political, and historical evolution of criminal procedure with an emphasis on its application with regard to law enforcement and the judiciary.  
*Prereq: CRM 300 and CRM 301.*
- CRM 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: SOCL 105 and CRM 300.*
- CRM 487 Cooperative Education in Criminal Justice** 3 hrs  
Practical experience in agencies or government settings to provide job skills. Credit/no credit.  
*Prereq: CRM 387/SOCL 387.*

- CRM 488/489 Field Internship in Criminology and Criminal Justice** 3 hrs each  
A minimum of ten hours per week in a governmental or private agency dealing with the crime problem. The agency and the field instructor provide supervised learning experiences.  
*Prereq: Junior standing, CRM 300-CRM 301, and department permission. Second semester juniors may be admitted by department permission.*

- CRM 497/498/499 Independent Study** 1/2/3 hrs  
Independent study, under the supervision of a department member, in areas in which the department does not offer a course.  
*Prereq: Department permission.*

### Sociology Courses

- SOCL 105 Introductory Sociology** 3 hrs  
Basic sociological concepts are used to analyze social systems, socialization, social inequality, deviance and conformity, and the process of social change with focus on family, educational, religious, governmental and economic institutions.
- SOCL 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: SOCL 105.*
- SOCL 202 Social Problems** 3 hrs  
An analysis of problems arising in contemporary American society, such as child rearing, relations between the sexes, crime and delinquency, relations between racial and cultural subgroups, and personality disorders.  
*Prereq: SOCL 105.*
- SOCL 204 Marriage and Family** 3 hrs  
The position and significance of the family in our changing society. Courtship, mate selection, and problems of marital adjustment from sociological and social-psychological perspectives.  
*Prereq: SOCL 105.*
- SOCL 205 Minority Women in the United States** 3 hrs  
This course surveys the situation of and the conditions that affect the lives of four groups of minority women in the United States who are from diverse cross-cultural backgrounds: Black, Asian-American, Latin-American, and Native American. It focuses on the contemporary situation of these women and compares the four groups in terms of demographics, economic and occupational situations, education, family lives, and relationship to the feminist movement.
- SOCL 214 Racial and Cultural Minorities** 3 hrs  
Racial and cultural minorities in the modern world with particular references 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 peoples; and proposed solutions of ethnic problems.  
*Prereq: SOCL 105 or ANTH 135.*
- SOCL 250 Social Statistics I** 3 hrs  
Introduction to the evaluation of empirical data and the organization of bivariate and univariate data using descriptive and inferential statistical techniques.  
*Prereq: SOCL 105.*
- SOCL 277/278/279 Special Topics** 1/2/3 hrs  
A single topic is covered each semester, selected as the interest and/or problems change. Students may elect this course several times, provided



different topics are studied, but only twice for credit toward a major or minor in sociology.

*Prereq:* SOCL 105.

**SOCL 303 Sociology of Childhood and Youth** 3 hrs  
Childhood and youth as elements of social organization. The relationship between social structure and the emergent personality of the individual; normality and deviance as social processes.

*Prereq:* SOCL 105.

**SOCL 304 Methods in Sociological Research** 3 hrs  
Methods used in sociological research and their various applications. Participation in conducting a survey.

*Prereq:* SOCL 105 and SOCL 250.

**SOCL 306 The Urban Community** 3 hrs  
Ecological and social organization of urban life. The metropolitan trend in the United States and the social problems created by it.

*Prereq:* SOCL 105.

**SOCL 307 Industrial Sociology** 3 hrs  
The social structure of the workplace, the work experience of the participants and the relation of both to the community and to society. Formal structure of large-scale organizations and the operation of small groups within them.

*Prereq:* SOCL 105.

**SOCL 308 Social Psychology** 3 hrs  
Introductory study of the order and regularity underlying processes of human interaction. Motives and attitudes, social norms and roles, the socialization process, personality and group membership. The effect of group membership upon individual behavior. Credit cannot be earned in both SOCL 308 and PSY 309.

*Prereq:* SOCL 105 and PSY 101.

**SOCL 309 Culture and Personality** 3 hrs  
An analysis of the manner in which group and cultural factors influence the growth and change of personality. The impact of personality types on group life. Not open to those with credit in ANTH 309.

*Prereq:* SOCL 105 or ANTH 135 and PSY 101.

**SOCL 310 Contemporary American Class Structure** 3 hrs  
The determinants and consequences of social class structure in America. The nature of social classes, status groups, and the distribution of power from various theoretical perspectives. The relationships between social class and the family, schools, government, religion and recreation both with reference to the total system and to various racial and regional sub-systems.

*Prereq:* SOCL 105.

**SOCL 311 Social Gerontology** 3 hrs  
Demographic and sociocultural factors in aging, the aging individual as a person, older people as groups and aggregates within the culture and structure of a changing society, the manner in which society attempts to meet the needs of aging people and the aged.

*Prereq:* SOCL 105.

**SOCL 312 Medical Sociology** 3 hrs  
Social behavior and social organization as factors in disease distribution. The sociological analysis of medical care, organization and practitioners.

*Prereq:* SOCL 105 and sophomore standing.

**SOCL 320 Sociology of Religion** 3 hrs  
A sociological analysis of religious organizations and the institution of religion including the interaction between religious organizations and

other institutions and associations, and the role of religion in social movements and social change.

*Prereq:* SOCL 105 or ANTH 135.

**SOCL 321 Cooperation and Conflict in Society** 3 hrs  
The principles of cooperation, cooperation in our competitive-individualistic society, cooperative skills, and forms of mutual aid are examined. Students learn cooperation through doing, as well as reading and writing, including a variety of group projects, exercises and discussion.

*Prereq:* SOCL 105 or ANTH 135.

**SOCL 334 Population** 3 hrs  
Population size and composition, and their impact on society; determinants and consequences of natality, mortality and migration; the relationship between human numbers and resources and its politico-economic implications; population theories and policies of population control.

*Prereq:* SOCL 105.

**SOCL 336 Social and Cultural Change** 3 hrs  
Survey of the theories and problems of change in developing and advanced societies. *Not open to those with credit in ANTH 336.*

*Prereq:* ANTH 135.

**SOCL 339 Sociology of Love** 3 hrs  
A sociological examination of love, emphasizing typologies, scientific research and cross-cultural comparisons. Special attention is given to the analysis of love in terms of feelings, thoughts, behaviors and attitudes.

*Prereq:* SOCL 105.

**SOCL 341 Quantitative Methods of Social Research I** 3 hrs  
Examination and review of research methods in behavioral sciences and the nature of empirical data, organization of univariate and bivariate data. *Not open to those with credit in SOCL 250 or SOCL 304. Must be followed by SOCL 342.*

*Prereq:* SOCL 105.

**SOCL 342 Quantitative Methods of Social Research II** 3 hrs  
Further review and applications of research methods and introduction to statistical inference. *Not open to those with credit in SOCL 250 or SOCL 304.*

*Prereq:* SOCL 341.

**SOCL 344 Sociology of Gender** 3 hrs  
Analysis of past, present and future sex roles; the changing roles of women and men, and the conflicts and consequences of these changes on marriage and family systems in the United States.

*Prereq:* SOCL 105.

**SOCL 345 Qualitative Methods** 3 hrs  
A review and examination of social-science research methods that entail fieldwork, participant observation, naturalistic experimentation, and the analysis of cultural data. *Not open to those with credit in ANTH 345.*

*Prereq:* Nine hours in anthropology or department permission.

**SOCL 352 Sociology of Education** 3 hrs  
Using the traditional lecture method combined with small-group interactive exercises, this course will systematically examine the institution of American public education by focusing on the interplay between education, its social history, gender and race, environment, social control, ideology, the school in a global economy, and social structure in the formation and procession of schooling through a variety of theoretical scopes.

**SOCL 375 Political Sociology** 3 hrs  
The structure of political systems analyzed from an individual and social system perspective.

*Prereq:* SOCL 105. Junior standing.

**SOCL 377/378/379 Special Topics 1/2/3 hrs**

One topic is covered each semester, selected as the interest and/or problems change. Students may elect this course several times, provided different topics are studied, but only twice for credit toward a major or minor in sociology.

*Prereq: SOCL 105.*

**SOCL 387 Cooperative Education in Sociology 3 hrs**

Practical experience in industrial, business, or government settings to provide job skills. Credit/no credit basis.

*Prereq: SOCL 105 and one SOCL course at the 300 level.*

**SOCL 402 Group Dynamics 3 hrs**

Structure and interaction processes of small groups. Cohesiveness, group standards, conformity and deviance, leadership, group emotion, communication, group roles and sociometrics.

*Prereq: SOCL 105 or PSY 101.*

**SOCL 403 Modern Sociological Theory 3 hrs**

The rise and development of sociological thought from Comte to the present. The works of various European and American schools analyzed and critically appraised in terms of their value in empirical research.

*Prereq: SOCL 105 and one SOCL course at the 300 level.*

**SOCL 405 Senior Seminar in Sociology 3 hrs**

The purpose of this course is to integrate sociological knowledge, theory and methods, and relate them to applications within the student's discipline and profession.

*Prereq: SOCL 105, SOCL 250, SOCL 304, and SOCL 403. Senior standing.*

**SOCL 412 Law and Society 3 hrs**

Law as a social and cultural product; the interrelationships between law and social institutions. *Not open to those with credit in CRM 412.*

*Prereq: SOCL 105 and CRM 300.*

**SOCL 448 Collective Behavior 3 hrs**

Spontaneous, transitory and volatile collective behavior contrasted with the relatively stable, institutionalized patterns of interaction. Analysis of rumor transmission, crowd behavior, mass behavior, and the emergence of organized social movements.

*Prereq: SOCL 105.*

**SOCL 450 The Family 3 hrs**

The family as a basic social institution. Various types of family systems throughout the world with special emphasis on the American family.

*Prereq: Junior standing and either SOCL 105 or ANTH 135.*

**SOCL 451 Sociology of Work and Occupations 3 hrs**

Social aspects of work. Recruitment, career patterns, professionalization, sociology of the workplace and labor force.

*Prereq: SOCL 105.*

**SOCL 462 Complex Organizations 3 hrs**

An examination of several types of large organizations, with emphasis on the nature of bureaucratic organizations. Theoretical and empirical studies of organizational growth, recruitment, control and relations between organizations.

*Prereq: SOCL 105.*

**SOCL 465 Sociology of Revolution 3 hrs**

This course surveys major theoretical perspectives that have been used by social scientists to interpret and explain revolutions. With the aid of the best available theories, the course will examine a series of historical instances, ranging from the French Revolution of the 18th century, through the Russian and Chinese Revolutions, to recent revolutions in post-colonial or dependent countries, such as the Iranian Revolution.

*Prereq: SOCL 105.*

**SOCL 477/478/479 Special Topics 1/2/3 hrs**

A single topic is covered each semester, selected as interest and/or problems change. Students may elect this course several times, provided different topics are studied, but only twice for credit toward a major or minor in sociology.

*Prereq: SOCL 105.*

**SOCL 487 Cooperative Education in Sociology 3 hrs**

Practical experience in industrial, business, or government settings to provide job skills. Credit/no credit basis.

*Prereq: SOCL 387/CRM 387.*

**SOCL 489 Internship in Sociology 3 hrs**

Students are assigned a minimum of eight hours per week to a governmental or private organization dealing with a sociological problem, issue, service or concern. The placement, in agreement with the field instructor, provides supervised learning experiences appropriate to the objectives of the undergraduate program. A weekly seminar relates field experience to theory.

*Prereq: SOCL 105, senior standing in sociology and department permission.*

**SOCL 497/498/499 Independent Study 1/2/3 hrs**

Directed reading and research on problems within the field of sociology.

*Prereq: Department permission.*

# Women's Studies

Web site: [www.emich.edu/public/wstudies/home.html](http://www.emich.edu/public/wstudies/home.html)

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**Professors:** Margaret Crouch (PHIL), Margot Duley (HIST), Robert Grady (PLSC), Carol Haddad (INDT), Daryl Hafter (HIST), Kay Hodges (PSY), James Holoka (FLABS), Karen Lindenberg (PLSC), Annette Martin (CTA), Rebecca Martusewicz (TED), Sandra McClennan (SPED), Maureen McCormack (TED), Kate Mehuron (PHIL), Valerie Polakow (TED), Patricia Pokay (TED), Barbara Richardson (SAC), Marie Richmond-Abbott (SAC), Ellen Schwartz (FA), Joanna Scott (PLSC), Karen Sinclair (SAC)

**Associate Professors:** Kathleen Beauvais (TED), Jean Bush-Bacelis (MGT), Ellen Contis (CHEM), Laura George (ENGL), Rachel Brett Harley (MUSC), Mark Higbee (HIST), Pamela Graves (HIST), Syliva Jones (TED), Rhonda Kinney (PLSC), Heather Neff (ENGL), Alexandra Norton (ENGL), Elizabeth Schuster (GERT), Silvia von Kluge (PSY)

**Assistant Professors:** Betty Barber (HECR), Barbara Bilgé (SAC), Lori Burlingame (ENGL), Elisabeth Dauemer (ENGL), Jill Dieterle (PHIL), Tammy Greco (BIOL), TeResa Green (PLSC and AAS), Christina Jose-Kampfner (TED), Paul Leighton (SAC), Michael McNally (HIST), Richard Stahler-Sholk (PLSC), Kay Woodiel (HPERD)

The Women's Studies Program offers an interdisciplinary academic major and minor to provide intellectual perspective and life-enriching skills for women and men. Professors have designed interdisciplinary courses that document the contributions of women to history, literature, 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 Studies Program can be taken as electives to enrich any major.

## Programs of Study

### Major:

Women's Studies

### Minor:

Women's Studies

## Advising coordinator:

Advising is the responsibility of the program director.

## Women's Studies Major

ISIS major code: WM01

### Core Courses: ..... 9

- #WMST 200 Introduction to Women's Studies (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) ..... 3
- #PHIL 226/#WMST 226 Philosophy of Women (satisfies general education requirement IV.3 and the cross-cultural/international studies requirement) ..... 3
- WMST 400 Capstone Seminar ..... 3

### Restricted electives: ..... 12

Choose three hours from the courses listed under each of the four groups below: Arts and Humanities; Social and Physical Sciences; Multicultural and Cross-Cultural Studies; and Practice and Policy.

### Electives: ..... 9

Choose an additional nine hours from the remaining courses in consultation with the advising coordinator.

*Special topics courses (WMST 279/378/379/478/479) and independent study (WMST 497/498/499) offerings may be substituted for either restricted or other electives with department permission.*

#### Group I—Arts and Humanities

- FA 436/WMST 436 Women in Art (3)
- HIST 335/WMST 335 History of Women in Europe (3)
- #HIST 336/WMST 336 History of Women in the United States and Great Britain, 1800 to the Present (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- LITR 443/WMST 443 Women in Literature (3)
- PHIL 426/WMST 426 Topics in Gender and Philosophy (3)

#### Group II—Social and Physical Sciences

- #ECON 328/#WMST 328 Economics of Women (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- INDT 420/WMST 420 Women and Technology (3)
- PLSC 365 Women and Politics (3)
- PSY 242/WMST 242 Psychology of Women (3)
- #SOCL 344/#WMST 344 Sociology of Gender (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)

#### Group III—Multicultural and Cross-Cultural Studies

- AAS 361 The African American Family (3)
- #ANTH 214/#SOCL 214 Racial and Cultural Minorities (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #ANTH 355/#WMST 355 Anthropology of Women (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #CTAC 375 Interracial/Interethnic Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)
- #ECON 321 Minority Workers in the Labor Market (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- PSY 340 Psychological Perspectives on Prejudice and Discrimination (3)

#### Group IV—Practice and Policy

- ATHL 317 Theory of Coaching Individual Sports for Women (2)
- ATHL 318 Theory of Coaching and Teaching Women's Team Sports (2)
- BEDU 205 Women in Business (3)
- CSAP 450 An Introduction: Counseling Concepts and Skills (3)
- HLED 360 Concepts in School Sex Education (2)
- HLED 399 Teaching about AIDS (1)
- LEGL 313 Family Law (3)
- PHED 405/WMST 405 Women in Sports (3)
- PSY 240 Psychology of Sex (3)
- SOCL 450 The Family (3)
- SWRK 403 Practice Issues with Women (3)
- SWRK 413 Women and Aging (3)
- SWRK 465 Social Work, Sex, and the Family (3)
- WMST 387 Cooperative Education in Women's Studies (3)
- WMST 487 Cooperative Education in Women's Studies (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coa/wms/ugrad/major/wmst.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coa/wms/ugrad/major/wmst.html).

**Total: ..... 30 hours**

*#Advising note:* 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.

## Women's Studies Minor

### ISIS minor code: WM01

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 Studies Program director or the undergraduate adviser for other approved women's studies courses offered in the term for which you register.

**Required courses** ..... 15

- #WMST 200 Introduction to Women's Studies (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) ..... 3
- Choose six hours from the courses listed under Group I, and six hours from the courses listed under Group II ..... 12

*Group I—Arts and Humanities*

- FA 436/WMST 436 Women in Art (3)
- HIST 335/WMST 335 History of Women in Europe (3)
- #HIST 336/#WMST 336 History of Women in the United States and Great Britain, 1800 to the Present (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- LITR 443/WMST 443 Women in Literature (3)
- #PHIL 226/#WMST 226 Philosophy of Women (satisfies general education requirement IV.3 and the cross-cultural/international studies requirement) (3)
- PHIL 426/WMST 426 Topics in Gender and Philosophy (3)

*Group II—Social and Physical Sciences*

- #ANTH 355/#WMST 355 Anthropology of Women (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- INDT 420/WMST 420 Women and Technology (3)
- PLSC 365 Women and Politics (3)
- PSY 242/WMST 242 Psychology of Women (3)
- #SOCL 205 Minority Women in the United States (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #SOCL 344/#WMST 344 Sociology of Gender (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)

**Electives** ..... 6

*Special topics courses (WMST 279/378/379/478/479) and independent study (WMST 497/498/499) offerings may be substituted for either restricted or other electives with department permission.*

Choose six credits from the following electives:

- AAS 361 The African American Family (3)
- #SOCL 214/#ANTH 214 Racial and Cultural Minorities (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- ATHL 317 Theory of Coaching Individual Sports for Women (2)
- ATHL 318 Theory of Coaching and Teaching Women's Team Sports (2)
- BEDU 205/WMST 205 Women in Business (3)

- LEGL 313 Family Law (3)
- #CTAC 374 Intercultural Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)
- #CTAC 375 Interracial/Interethnic Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)
- #ECON 321 Minority Workers in the Labor Market (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- CSAP 450 An Introduction: Counseling Concepts and Skills (3)
- HLED 360 Concepts in School Sex Education (2)
- HLED 399 Teaching about AIDS (1)
- PHED 405/WMST 405 Women in Sports (3)
- PSY 240 Psychology of Sex (3)
- PSY 340 Psychological Perspectives on Prejudice and Discrimination (3)
- SOCL 450 The Family (3)
- SWRK 403 Practice Issues with Women (3)
- SWRK 413 Women and Aging (3)
- SWRK 465 Social Work, Sex, and the Family (3)

*#Advising note:* These courses satisfy both general education requirements and requirements of the minor. 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.

**Total:** ..... 21

## Women's Studies Courses

**WMST 177/178/179 Special Topics** 1/2/3 hrs

Different subject matter will be taught each semester offered, including interdisciplinary courses in women's 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's studies.

*Prereq: Department permission.*

**WMST 200 Introduction to Women's Studies** 3 hrs

An overview of women in society. Historical and literary perspectives on women's contributions; socialization, roles and status in professional fields.

**WMST 205 Women in Business** 3 hrs

Social and business conditions that support the entry of women to executive positions in business; career opportunities at the professional and executive levels of business.

**WMST 226 Philosophy of Women** 3 hrs

A consideration of philosophical issues concerning the nature and status of women. Readings from both traditional and contemporary sources. Topics may include scientific and religious views, the ideal society and women's place in it, varieties of feminism, views on sexuality, family and reproduction, and work and the economy.

**WMST 242 Psychology of Women** 3 hrs

Theories and empirical research concerning personality development in females. Examination of the origins of the behavior of women.

*Prereq: PSY 101 or PSY 102.*

**WMST 277/278/279 Special Topics** 1/2/3 hrs

Different subject matter will be taught each semester offered, including interdisciplinary courses in women's 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's studies.

*Prereq: Department permission.*

**WMST 322 Women and Gender in the Ancient World 3 hrs**  
An investigation of life for women in antiquity, focusing on the sex-gender system of Greek and Roman societies. Literary, inscriptional and other evidence will be studied to disclose the classical roots of western beliefs and attitudes about women.

**WMST 328 Economics of Women 3 hrs**  
The changing economic role of women in the labor force. Analysis of policies affecting earnings, employment, and work and family issues in traditional and nontraditional occupations. Includes some international comparisons.

*Prereq: One course in economics or junior standing.*

**WMST 335 History of Women in Europe 3 hrs**  
A study of the history of women and views of women in western society from the 18th century to the present. Emphasizes the struggles, setbacks and achievements of the women's movements in the context of modern European history.

*Prereq: One course in history.*

**WMST 336 History of Women in the United States and Great Britain, 1800 to the Present 3 hrs**

A comparative study of the history of women in the United States and Great Britain. Examines the ideology of the nature and role of women, the history of women's lives, the impact of industrialization, and the feminist movements of the 19th and 20th centuries.

*Prereq: One course in history or department permission.*

**WMST 344 Sociology of Gender 3 hrs**  
Analysis of past, present and future sex roles; the changing roles of women and men, and the conflicts and consequences of these changes on marriage and family systems in the United States.

*Prereq: Sophomore standing.*

**WMST 355 Anthropology of Women 3 hrs**  
The role of women in diverse cultural contexts. Theories dealing with the position of women. Life histories of women constitute the basic reading in this course.

*Prereq: ANTH 135 or department permission.*

**WMST 377/378/379 Special Topics 1/2/3 hrs**  
Different subject matter will be taught each semester offered, including interdisciplinary courses in women's 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's studies.

*Prereq: Department permission.*

**WMST 387 Cooperative Education in Women's Studies 3 hrs**  
This course provides students with an opportunity to deal directly with issues affecting women by working with agencies and local organizations.

*Prereq: Department permission.*

**WMST 400 Capstone Seminar 3 hrs**  
A culminating experience designed to enable students to understand, demonstrate and improve skills acquired as majors or minors in the program, and to facilitate the integration of interdisciplinary knowledge.

*Prereq: WMST 200 and WMST 226/PHIL 226.*

**WMST 420 Women and Technology 3 hrs**  
An interdisciplinary course designed to familiarize students with various concepts of technology, technological change, and technological society; probe the problems and advantages women face in technologi-

cal society or technology-based professions; explore women's roles in several specific technology professions.

**WMST 426 Topics in Gender and Philosophy 3 hrs**  
An examination of gender and its relationship to other issues from a philosophical perspective. Possible topics include rationality, sexuality, aesthetics, ethics and political theory.

*Prereq: Two courses in philosophy.*

**WMST 436 Women in Art 3 hrs**  
A survey of the contributions of female artists in the history of art. Discussions will include the history of women as patrons of the arts, and the uses of the female image in art.

*Prereq: FA 108 or department permission.*

**WMST 443 Women in Literature 3 hrs**  
A study of women and their experiences as described in literature.

*Prereq: Two courses in literature.*

**WMST 477/478/479 Special Topics 1/2/3 hrs**  
Different subject matter will be taught each semester offered, including interdisciplinary courses in women's 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's studies.

*Prereq: Department permission.*

**WMST 487 Cooperative Education in Women's Studies 3 hrs**  
This course provides students with an opportunity to deal directly with issues affecting women by working with agencies and local organizations.

*Prereq: Department permission.*

**WMST 497/498/499 Independent Study 1/2/3 hrs**  
Advanced study on an individual basis in areas in which the program does not offer formal courses. These courses are restricted to juniors and seniors.

*Prereq: Department permission.*

# **College of Business**

**Thomas K. Harden  
Interim Dean**

**P. Nick Blanchard  
Interim Associate Dean**

**Amelia S. Chan  
Associate Dean**

**437 Gary M. Owen Building  
734.487.4140**

## **DEPARTMENTS**

**Accounting**

**Finance and Computer Information Systems**

**Management**

**Marketing**

## College of Business

Web site: [www.emich.edu/public/cob/cob.html](http://www.emich.edu/public/cob/cob.html)

The College of Business, in partnership with our stakeholders, prepares individuals for careers in business by providing professionally accredited programs of the highest quality at the undergraduate and graduate levels, and offering professional development education to the business community. The College values and promotes active learning, life-long development, applied research, professional service and an international perspective in all programs.

With all the benefits of a large university, the College of Business provides a learning edge to the student who is our primary focus.

- Making use of small classes led by professors with practical experience and an innovative curriculum.
- Utilizing pedagogy and information technology in a participatory environment that promotes critical thinking.
- Conducting applied research that expands knowledge and provides mutual-gain opportunities to students and faculty members.
- Improving programs to keep them relevant, accessible and of the highest quality.
- Encouraging students to be productive professionals who seek personal and professional growth.

The Bachelor of Business Administration degree is offered to students concentrating in any one of 9 undergraduate professional programs:

Accounting  
Accounting Information Systems  
Computer Information Systems  
Economics\*  
Finance  
General Business  
International Business  
Management  
Marketing

\*Economics is offered in cooperation with the Economics department, College of Arts and Sciences.

Degree programs are described within the appropriate departments.

The Joint Bachelor of Business Administration-Bachelor of Arts degree in Language and World Business is offered in cooperation with the College of Arts and Sciences and the EMU World College.

Graduate programs lead to the Master of Business Administration and Master of Science degrees in accounting, in computer-based information systems, and in human resources and organization development. For descriptions of graduate programs and courses in the College of Business, consult the graduate catalog.

**Accreditation of all undergraduate and graduate programs is by The International Association for Management Education (AACSB).**

ADMISSION TO THE COLLEGE OF BUSINESS is open to student applicants with 56 or more credit hours completed who are enrolled in the last one or two of the 16 required courses to qualify for admission. Students who want to advance register should return their applications to the College of Business Undergraduate Business Program Office by the deadlines listed below:

Winter semester: ..... November 15  
Spring and summer sessions: ..... March 15  
Fall semester: ..... July 15

Applications for each semester must be accompanied by a progress report, tabulation of transfer credit, and transcripts or grade reports in order for the applicant to be approved or registered in business courses.

Students may obtain an application for admission to EMU's College of Business from the College directly:

Undergraduate Business Program Office  
College of Business  
Eastern Michigan University  
401 Owen  
Ypsilanti, Michigan 48197  
734.487.2344

Students must be admitted by 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.

To qualify for admission, students must have successfully completed 56 credit hours with a minimum cumulative grade point average of 2.50. In addition, the following courses (1 through 14) 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. #ENGL 121 English Composition (satisfies general education requirement I.1)
2. #CTAS 121 Fundamentals of Speech (satisfies general education requirement I.2) or #CTAS 124 Fundamentals of Speech (satisfies general education requirement I.2)
3. An English, foreign language or communication elective
4. #MATH 118 Mathematical Analysis for Social Sciences I (satisfies general education requirement I.4)
5. #ECON 201 Principles of Economics I (satisfies general education requirement III.3) and #ECON 202 Principles of Economics II (satisfies general education requirement III.4)
6. #PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1)
7. Philosophy or religion (logic or ethics strongly recommended)
8. #PSY 101/#PSY 102 General Psychology (satisfies general education requirement II.2 or II.3)
9. COB 200 Introduction to Business
10. ACC 240 Principles of Accounting I and ACC 241 Principles of Accounting II
11. LAW 293 Legal Environment of Business
12. #IS 215 End-User Computing (satisfies general education requirement I.5)
13. MGMT 202 Business Communication
14. DS 265 Business Statistics I

Business courses numbered 300 and above may not be taken by business students who have not completed admission requirements. Students who fail to satisfy admission requirements will be involuntarily withdrawn from upper-division business courses by the college. Refunds in effect at the date of withdrawal shall apply.

**Non-business majors** 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 credit hours) and of good academic standing (2.00 grade point average 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 credit 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. Non-business majors also must satisfy stated course prerequisites listed in this catalog or updated in the current Class Schedule Bulletin.

Prospective **transfer students** are strongly recommended to contact the College of Business Undergraduate Advising Office at 401 Owen Building (telephone: 734.487.2344, FAX: 734.480.0618, e-mail: [amelia.chan@emich.edu](mailto:amelia.chan@emich.edu)) to have transfer credits reviewed individually and unofficially evaluated by presenting unofficial transcripts/records. 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. Any business-intent student 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.

**Second bachelor's degree** students must apply to the Undergraduate office and must be advised by the coordinator of advising for second bachelor's degrees to be eligible to enroll in business courses. Second bachelor's candidates working toward a business degree must formally apply for admission to the College of Business and must meet all college admission requirements.

**Special students and nonmatriculated students** may not be eligible to register in College of Business courses. Such students should contact the Undergraduate Business Program Office for advising.

**Guest students** may enroll for one semester only with approval in advance from the College. Guest student applicants should provide proof of guest status and completion of 56 credit hours, as well as completion of appropriate prerequisites for intended upper-level course work. An unofficial transcript from the student's parent institution is recommended, and an official transcript may be required.

Advising is offered to all College of Business students in each major area. Faculty are available to discuss career opportunities and to assist students who are undecided about a major.

Undergraduate business intent students are encouraged to contact the Undergraduate Business Program Office (Room 401 Owen) to receive guidance in selecting appropriate courses to meet College of Business admission requirements.

Academic standards require that students maintain a 2.00 grade point average. Students who fail to achieve this average in any term or to maintain a cumulative 2.00 GPA will be considered to be on probation by the University. Two consecutive semesters of less than 2.00 earned or cumulative GPA may result in dismissal from the University.

To qualify for graduation, students must maintain a GPA of 2.00 in the business administration core and 2.00 in their major as well as maintaining a 2.00 overall EMU GPA.

## Business Scholars Program

This program is designed to attract and retain EMU Honors Program members into the College of Business. Students will benefit from being members of a selected group in their area of interest which enjoys mutually supportive relationships, course work designed especially for them, the mentorship of COB faculty, earlier and easier access to courses in the preferred areas of study and the special recognition which will go along with membership in the group.

Please contact the EMU Honors Program director (734.487.0341) or the Undergraduate Business programs office (734.487.2344) for further details.

## Baccalaureate Degree Curriculum for the Bachelor of Business Administration Degree

**Advising Coordinator:** Amelia Chan

The Bachelor of Business Administration degree requires that students successfully complete a minimum of 57 credit hours in business (excluding business statistics) within the minimum 124 hours required to qualify for a B.B.A. degree. No more than 50% of course work may be completed in the business area.

In the program of study outlined below, the number of general education credit hours in symbolics and communication, mathematics, science and technology, social science, and arts and humanities is indicated. Students must take the specified courses as shown. In some cases, courses taken to meet general education requirements also may satisfy

specific program requirements, as in the case of economics and mathematics. Both course and credit hour requirements must be met in the practical arts.

Students must meet requirements for admission to the College of Business before enrolling in upper-division (300- or 400-level) business courses.

The curriculum described meets the major and minor requirements for graduation. No outside minor is needed. Please refer to University general education requirements for additional information.

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), 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.

### GENERAL STUDIES

A. General Education Requirements: .....	29
B. Other Required Courses: .....	15
#ENGL 121 English Composition (satisfies general education requirement I.1) .....	3
#MATH 118 Mathematical Analysis for Social Sciences I (satisfies general education requirement I.4) .....	3
#PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1) .....	3
#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	3
#ECON 202 Principles of Economics II (satisfies general education requirement III.4) .....	3
Logic or ethics is strongly recommended for general education requirement IV.3.	
D. Physical Education/Graduation Requirement: .....	2

*Note:* Students can sometimes test out of certain general education courses for up to 30 hours by passing the CLEP examinations.

Credit hours in general studies: .....

### Academic Major: hours required varies

<b>Business Core:</b> .....	21
ACC 240 Principles of Accounting I .....	3
ACC 241 Principles of Accounting II .....	3
COB 200 Introduction to Business .....	3
LAW 293 Legal Environment of Business .....	3
MGMT 202 Business Communication .....	3
#IS 215 End-User Computing (satisfies general education requirement I.5) .....	3
DS 265 Business Statistics I .....	3
<b>Business Administration Core:</b> .....	15
<i>(All 200-level core courses listed above must be completed prior to admission to the College of Business.)</i>	
FIN 350 Principles of Finance .....	3
MKTG 360 Principles of Marketing .....	3
MGMT 386 Organizational Behavior and Theory .....	3
POM 374 Introduction to Production/Operations Management .....	3
MGMT 490 Business Policy .....	3
<i>(All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)</i>	

**Specialization:** .....

Choose one of the following: accounting, accounting information systems, business computer systems, economics, finance, general business, management, marketing, production/operations management, international business

**MINOR: no minor is required**



**Free electives: hours required varies**

Business majors may complete no more than 50 percent of their course work in business, including **validated** business transfer courses. (DS 265 Business Statistics is excluded from the 50% limit.)

*Students planning to pursue graduate study in business administration are encouraged to select MATH 120 Calculus I and MATH 122 Elementary Linear Algebra. (MATH 122 may replace MATH 118 for the mathematics requirement)*

Please check with the Mathematics Department for math placement and prerequisites.

Students planning to continue study in a graduate school of business are urged to complete the following courses as electives:

- ECON 301 Intermediate Macroeconomic Analysis (3)
- ECON 302 Intermediate Microeconomic Analysis (3)
- DS 465 Applied Linear Statistical Models (3)

**Total: ..... 124 hours**

*#Advising note:* 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.

**The Joint Bachelor of Business Administration-  
Bachelor of Arts Degree in Language and World  
Business**

**ISIS major code: BU02**

The Joint Bachelor of Business Administration-Bachelor of Arts degree in Language and World Business is a double degree for undergraduates planning to enter a career in world business or international government and public administration. The major objective of the program is to prepare students for international careers with business and language skills, along with the knowledge needed to function effectively in the increasingly competitive world economy. The LWB joint degree provides students with both practical, on-site work experience as well as a thorough academic background in international affairs and world enterprise.

Students in the language and world business program receive two separate but integrated degrees: a Bachelor of Business Administration, with a major in any one of eight professional areas, and a Bachelor of Arts in language and international trade. The language and international trade major trains students in French, German, Japanese or Spanish for business and professional situations. It also includes cultural and area studies. Students additionally may take examinations leading to certification in Business French or German.

All eligible LWB joint degree students may take part in a cooperative education internship. Qualified students are eligible for placement in companies in locations such as Paris, Rouen, Madrid and Stuttgart. Companies around the world that have hosted EMU interns include Mercedes-Benz, Volkswagen, Bosche, Siemens, Renault, ELF Petrochemical, Kiwi, Société Générale de Surveillance, Foreign Trade Bank of Madrid, Unesa Corporation, and others, including foreign branches of U.S. Fortune 500 companies. The goal is to place qualifying students abroad where they can use their language and business skills in an actual international professional environment. Students who do not go abroad may be placed regionally and work one or two semesters for an employer in a staff support or administrative capacity. Both foreign and domestic internships are contingent on the availability of traineeship positions.

The program is designed for students who have completed course work in a foreign language and can be placed into third-year language

classes. Students can then finish the joint degree in 154 credit hours, without any free electives. This is ordinarily a 10-semester program. The curriculum described meets the major and minor requirements for graduation. No outside minor is needed.

Some students, including transfer students, may require a slightly higher number of hours depending on the level of high school language courses.

All students eligible for admission to the College of Arts and Sciences and to the College of Business are eligible for the LWB joint degree. However, a placement test is required of all students of foreign language unless they successfully completed their last course in foreign language at EMU. This placement test is also strongly advised for students whose last course in a foreign language at EMU was completed more than one year before the semester for which they are currently enrolling.

Since this professional program is especially challenging, it is suggested that students enroll at the beginning of the freshman year.

Advising is offered to all joint B.B.A.-B.A. language and world business students, both in their major language and in their business major area. Faculty are available to discuss career opportunities and to assist students who are undecided about a major. Foreign language advising is available from appropriate advising coordinators who will recommend specific courses required in each language pattern.

For more information, contact:

Dr. Ronald Cere  
LIT/LWB adviser and Language for Business adviser  
Department of Foreign Languages and Bilingual Studies  
Eastern Michigan University  
219 Alexander  
Ypsilanti, MI 48197  
734.487.0130  
Fax: 734.487.0338  
E-mail: fla\_cere@online.emich.edu

Amelia S. Chan  
LWB/International Business adviser and Assistant Dean  
College of Business  
Eastern Michigan University  
401 Owen  
Ypsilanti, MI 48197  
734.487.2344  
Fax: 734.480.0618  
E-mail: amelia.chan@emich.edu

**Academic Major: ..... 108-120**

**Specialized Studies in Language and the Social Sciences**

**Component (FRNH, GERN, JPNE, or SPNH): ..... 18**

FRNH/GERN/SPNH 343 or JPNE 345 Composition ..... 3

FRNH/GERN/JPNE/SPNH 361 Language for

International

Trade ..... 3

FRNH/GERN/JPNE/SPNH 446-447 Business

Language I-II ..... 6

An additional six hours in advanced literature, culture, or

technical language ..... 6

**Language and International Trade Area Studies: ..... 9**

*Either:* ..... 6

GEOG 316 History and Geography of Modern  
Europe (3)

HIST 316 History and Geography of Modern  
Europe (3)

(Must be taken concurrently)

or

GEOG 317 History and Geography of Spanish America (3)  
 HIST 317 History and Geography of Spanish America (3)  
 (Must be taken concurrently)

or

GEOG 326 History and Geography of Modern Asia (3)  
 HIST 326 History and Geography of Modern Asia (3)  
 (Must be taken concurrently)

And one of the following: ..... 3  
 PLSC 211 Introduction to Comparative Government (3)  
 PLSC 212 Introduction to International Politics (3)  
 PLSC 341 International Law (3)  
 PLSC 342 International Organizations (3)  
 PLSC 354 Government and Politics of Canada (3)  
 PLSC 367 Contemporary Political Systems of Latin America (3)  
 PLSC 412 Comparative Legal Systems (3)

**Business Core:** ..... 21  
 ACC 240 Principles of Accounting I ..... 3  
 ACC 241 Principles of Accounting II ..... 3  
 COB 200 Introduction to Business ..... 3  
 LAW 293 Legal Environment of Business ..... 3  
 MGMT 202 Business Communication ..... 3  
 #IS 215 End-User Computing (satisfies general education requirement I.5) ..... 3  
 DS 265 Business Statistics I ..... 3

**Business Administration Core:** ..... 15  
 (All 200-level core courses listed above must be completed prior to admission to the College of Business)  
 FIN 350 Principles of Finance ..... 3  
 MKTG 360 Principles of Marketing ..... 3  
 MGMT 386 Organizational Behavior and Theory ..... 3  
 POM 374 Introduction to Production/Operations Management ..... 3  
 MGMT 490 Business Policy ..... 3  
 (All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)

*Note:* Students must seek admission to the College of Business before enrolling in its upper-division (300- or 400-level) business courses.

**Other International Courses:** ..... 18  
 FLAN 387 Cooperative Education in Foreign Language (spring/summer available) ..... 3  
 FLAN 499 Independent Study ..... 3  
 MKTG 460 International Marketing ..... 3  
 ECON 370 Comparative Economic Systems or  
 ECON 480 International Economics ..... 3  
 Choose two restricted electives from world business courses\*\* ..... 6  
 MKTG 375 International Business Transactions (3)  
 MGMT 492 Managing World Business Communication (3)  
 MGMT 495 International Management (3)  
 FIN 370 International Business Finance (3)  
 POM 480 Production/Operations Management—A World Business View (3)  
 ACC 475 International Accounting (3)

\*\*These two required courses are approved as “restricted electives” in the departments providing them. One course may be selected from the major and the second must be selected from any of these offerings out-

side the major area. This may satisfy the major requirement regarding “restricted electives.”

**Academic Specialization:** ..... 24-36

Choose one of the following:

Accounting  
 Accounting Information Systems\*\*\*  
 Computer Information Systems  
 Economics  
 Finance  
 General Business  
 Management  
 Marketing

\*\*\*Students may major in Accounting Information Systems (36-hour major). Graduation requirements will exceed 154 hours.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cob/cob/ugrad/major/bbalwb.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cob/cob/ugrad/major/bbalwb.html).

## International Business Major

**Academic Major:** ..... 73-76

**Language requirements:** ..... 10 or 13 hours

French, German and Spanish: 13 credit hours  
 Japanese: 10 credit hours

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 or who can demonstrate proficiency (through testing) in any foreign language may be waived from minimum requirements of French, German, Japanese or Spanish offered at EMU.

**Business Core:** ..... 21

ACC 240 Principles of Accounting I ..... 3  
 ACC 241 Principles of Accounting II ..... 3  
 COB 200 Introduction to Business ..... 3  
 LAW 293 Legal Environment of Business ..... 3  
 MGMT 202 Business Communication ..... 3  
 #IS 215 End-User Computing (satisfies general education requirement I.5) ..... 3  
 DS 265 Business Statistics I ..... 3

**Business Administration Core:** ..... 15

(All 200-level core courses listed above must be completed prior to admission to the College of Business.)

FIN 350 Principles of Finance ..... 3  
 MKTG 360 Principles of Marketing ..... 3  
 MGMT 386 Organizational Behavior and Theory ..... 3  
 POM 374 Introduction to Production/Operations Management ..... 3  
 MGMT 490 Business Policy ..... 3

(All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)

**Specialization:** ..... 27

ACC 475 International Accounting ..... 3  
 FIN 370 International Business Finance ..... 3  
 MGMT 495 International Management ..... 3  
 MKTG 460 International Marketing ..... 3  
 Two of: ..... 6

ACC 479 Special Topics: International Taxation (3)  
 ECON 370 Comparative Economic Systems (3) or  
 ECON 480 International Economics (3)  
 IS 479 Special Topics: Information Systems for International Business (3)

- FIN 479 Special Topics (3)  
 LAW 479 Special Topics: International Law (3)  
 MGMT 492 Managing World Business  
 Communication (3)  
 MKTG 375 International Business Transactions (3)  
 POM 480 Production/Operations Management—A  
 World Business View (3)

Choose one of the following functional disciplines: ..... 9

### Accounting

#### ISIS major code: BU11

- ACC 340 Intermediate Accounting I (3)  
 ACC 342 Managerial Cost Accounting (3)  
 ACC 356 Accounting Information Systems (3)

### Computer Information Systems

#### ISIS major code: BU12

- IS 380 Introduction to Databases (3)  
 IS 420 Business Data Communications and Computer  
 Networks (3)  
 IS 442 Information Resource Management (3)

### Economics

#### ISIS major code: BU13

See an adviser in the Economics Department.

### Finance

#### ISIS major code: BU14

Choose three:

- FIN 354 Investments (3)  
 FIN 357 Financial Markets and Institutions (3)  
 FIN 358 Analysis of Financial Statements or ACC 340  
 Intermediate Accounting I (3)  
 FIN 359 Intermediate Financial Theory (3)  
 FIN 450 Problems in Financial Management (3)  
 FIN 451 Introduction to Speculative Markets (3)  
 FIN 453 Commercial Banking (3)  
 FIN 454 Mortgage Banking (3)  
 INS 351 Introduction to Risk and Insurance (3)

### Production Operations Management

#### ISIS major code: BU17

Choose three:

- POM 472 Tools for Strategic Quality Management (3)  
 POM 474 Design of the Production/Operations  
 System (3)  
 POM 475 Production and Inventory Control I (3)  
 POM 476 Production and Inventory Control II (3)

### Management

#### ISIS major code: BU15

Choose three:

- MGMT 384 Human Resource Management (3)  
 MGMT 480 Management Responsibility and Ethics (3)  
 MGMT 484 Management-Union Relations (3)  
 MGMT 485 Human Resource Development (3)

### Marketing

#### ISIS major code: BU16

Choose any three marketing courses.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cob/cob/ugrad/major/intbiz.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cob/cob/ugrad/major/intbiz.html).

## Accounting

Web site: [www.emich.edu/public/accounting/home.html](http://www.emich.edu/public/accounting/home.html)

### S. Thomas A. Cianciolo

#### Department Head

406 Gary M. Owen Building

734.487.3320

E-mail: [thomas.cianciolo@emich.edu](mailto:thomas.cianciolo@emich.edu)

**Professors:** S. Thomas A. Cianciolo, Elton A. Devine, Zafar U. Khan, D. Robert Okopny, Chandra Pathak, Mohsen Sharifi, Andrew Snyir, Linda Woodland

**Associate Professors:** Howard Bunsis, Linda Burilovich, Wayne Ellis, Roger Gledhill, Susan C. Kattelus, John Keros, Morrey Kramer, Kenneth Young

**Assistant Professor:** Gary B. McCombs

The Accounting Department prepares students for professional careers related to the fields of accounting and accounting information systems. Within each of these major areas, students can develop their expertise in a variety of areas including financial accounting, budgeting, managerial accounting, accounting information systems, internal auditing, governmental accounting, taxes and auditing. Because of the need for good communication in business, students are encouraged to elect courses in English composition and speech beyond the basic requirements.

### Programs of Study

#### Majors:

- \*Accounting  
     Track: Internal Audit
- \*Accounting information systems

*\*The Accounting Department also offers a 150-hour program designed on the basis of the American Institute of Certified Public Accountants' recommendations.*

#### Minors:

- Accounting

Advising assistance, both academic and career, is provided by the faculty and is available in the department office Monday through Friday while school is in session, or by appointment.

**Advising coordinator:** Mohsen Sharifi

Graduate study leads to the Master of Science degree in accounting (M.S.A.). The M.S.A. degree program and courses are described in the graduate catalog.

## Bachelor-Master's Degree in Accounting (B.B.A.-M.S.A.)

**ISIS major code (undergraduate): AC0402**

**ISIS major code (graduate): AC9902**

Beginning in the year 2000, a CPA candidate must have completed 150 hours of education before being admitted as a member of the American Institute of Certified Public Accountants.

### Admission Requirements

Following are the minimal standards for admission to the 150-hour 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 most significant. Thus, a slight deficiency in one criterion may be compensated by the candidate's strength in other areas. Special circumstances, particularly improvement in recent performance, will be considered on their merits by the 150-Hour Program Policy Committee.

Transfer credits and grades will be evaluated in terms of Eastern Michigan University equivalency.

Initial admission is dependent on:

1. completion of 90 credit hours of undergraduate course work including College of Business requirements, general education requirements and ACC 341 Intermediate Accounting II.
2. a cumulative GPA of 3.0 on a 4.0 scale.
3. the candidate's written statement of personal goals.
4. an interview with the 150-hour program director/adviser.

Admission to the graduate level requires:

1. completion 120 credit 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).
3. completed application and payment of fee to the Graduate School.

If the candidate is an accounting undergraduate from another four-year accredited school and plans to complete the graduate-level program at EMU, he/she must meet the minimum requirements set for graduate-level admission noted above, in addition to the bachelor's degree. The candidate is encouraged to apply to EMU at the beginning of his/her senior year and take the Graduate Management Admission Test during that same year.

For more information, contact:

Director of Graduate Business Programs  
401 Gary M. Owen Building  
Ypsilanti, MI 48197  
734.487.4444

## Accounting Major

ISIS major code: AC02

Students majoring in accounting are prepared for professional careers in three major areas:

**Public accounting**, which leads to a career as a Certified Public Accountant (CPA). CPA firms provide a wide variety of professional services to their clients such as audit, tax, management advisory and personal financial planning.

**Strategic managerial accounting**, which leads to careers in strategic cost management, financial accounting, budget analysis, cost estimation and determination, and internal and operational auditing. The strategic Managerial Accountant generates and interprets operating and financial data that help management in their strategic and operational decision making.

**Institutional (not-for-profit) or governmental accounting**, which leads to positions in not-for-profit organizations and local, state and federal governmental agencies. These professionals provide financial information about the effectiveness of operations, similar to management accountants, review tax returns, analyze cost reports on projects funded by government, and assist regulatory commissions in monitoring private industry and individual businesses.

**Internal Audit** is a track available to students who seek careers in large private corporations. Internal auditors are viable candidates for executive development programs in large organizations.

Through an optional internship program, students with good academic records have an opportunity to work in public accounting or in-

dustry. 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 (public accounting), Certified Management Accountants (industrial, not-for-profit or governmental accounting), or Certified Internal Auditors (industrial, not-for-profit or governmental accounting) 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 beginning July 1, 2003. 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 credit hours for graduation, must be completed.

**Academic Major:** ..... 60

**Business Core:** ..... 21

ACC 240 Principles of Accounting I .....	3
ACC 241 Principles of Accounting II .....	3
COB 200 Introduction to Business .....	3
LAW 293 Legal Environment of Business .....	3
MGMT 202 Business Communication .....	3
#IS 215 End-User Computing (satisfies general education requirement I.5) .....	3
DS 265 Business Statistics I .....	3

**Business Administration Core:** ..... 15

(All 200-level core courses listed above must be completed prior to admission to the College of Business.)

FIN 350 Principles of Finance .....	3
MKTG 360 Principles of Marketing .....	3
MGMT 386 Organizational Behavior and Theory .....	3
POM 374 Introduction to Production/Operations Management .....	3
MGMT 490 Business Policy .....	3

(All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)

**Specialization:** ..... 24

ACC 340 Intermediate Accounting I .....	3
ACC 341 Intermediate Accounting II .....	3
ACC 342 Managerial Cost Accounting .....	3
ACC 344 Tax Accounting .....	3
ACC 356 Accounting Information Systems .....	3
ACC 445 Auditing .....	3
Restricted Electives: .....	6

Choose two courses from the following:

ACC 442 Advanced Cost Accounting (3)
ACC 444 Advanced Tax Accounting (3)
ACC 447 Contemporary CPA Problems (3)
ACC 448 EDP Auditing and Controls (3)
ACC 450 Internal Auditing (3)
ACC 451 Advanced Internal Auditing (3)
ACC 475 International Accounting (3)
ACC 479 Special Topics (3)
ACC 499 Directed Studies (3)
ACC 541 Advanced Financial Accounting (3)
ACC 546 Public and Nonprofit Sector Accounting (3)

*Note:* Students planning on sitting for the CPA examination in Michigan must elect ACC 546 Public and Nonprofit Sector Accounting and should select ACC 541 Advanced Financial Accounting.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cob/acc/ugrad/major/acc.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cob/acc/ugrad/major/acc.html).



## Accounting Information Systems Major

ISIS major code: AC04

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 numerous 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, not-for-profit accounting and strategic managerial accounting.

Upon graduation, accounting information systems majors who plan to become certified public accountants (public accounting), certified management accountants (industrial, not-for-profit or governmental accounting), certified internal auditors (industrial, not-for-profit or governmental accounting), or certified information systems auditors (public accounting, industrial, not-for-profit or governmental accounting) 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 beginning July 1, 2003. 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 credit hours for graduation, must be completed.

<b>Academic Major:</b> .....	<b>72</b>
<b>Business Core:</b> .....	<b>21</b>
ACC 240 Principles of Accounting I .....	3
ACC 241 Principles of Accounting II .....	3
COB 200 Introduction to Business .....	3
LAW 293 Legal Environment of Business .....	3
MGMT 202 Business Communication .....	3
#IS 215 End-User Computing (satisfies general education requirement I.5) .....	3
DS 265 Business Statistics I .....	3
<b>Business Administration Core:</b> .....	<b>15</b>
<i>(All 200-level core courses listed above must be completed prior to admission to the College of Business.)</i>	
FIN 350 Principles of Finance .....	3
MKTG 360 Principles of Marketing .....	3
MGMT 386 Organizational Behavior and Theory .....	3
POM 374 Introduction to Production/Operations Management .....	3
MGMT 490 Business Policy .....	3
<i>(All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)</i>	
<b>Specialization:</b> .....	<b>36</b>
ACC 340 Intermediate Accounting I .....	3
ACC 341 Intermediate Accounting II .....	3
ACC 342 Managerial Cost Accounting .....	3
ACC 344 Tax Accounting .....	3
ACC 356 Accounting Information Systems .....	3
ACC 445 Auditing .....	3
ACC 448 EDP Auditing and Controls .....	3

ACC 456 Accounting Information Systems Implementation and Projects .....	3
IS 219 File Processing and COBOL Programming .....	3
IS 380 Introduction to Databases .....	3
<i>Choose 2 of the following:</i>	
IS 247 Software Design and Programming in Business (3)	
IS 280 Introduction to Expert Systems in Business (3)	
IS 315 Applied Data Structures (3)	
IS 420 Business Data Communications and Computer Networks (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/cob/acc/ugrad/major/ais.html](http://www.emich.edu/public/catalogs/current/aca/colleges/cob/acc/ugrad/major/ais.html).

## Accounting Minor

(For non-business majors)

ISIS minor code: AC01

ACC 240 Principles of Accounting I .....	3
ACC 241 Principles of Accounting II .....	3
ACC 340 Intermediate Accounting I .....	3
ACC 341 Intermediate Accounting II .....	3
<i>Choose three courses from the following:</i> .....	<b>9</b>
ACC 342 Managerial Cost Accounting (3)	
ACC 344 Tax Accounting (3)	
ACC 346 Governmental Accounting (3)	
ACC 356 Accounting Information Systems (3)	
ACC 440 Advanced Accounting (3)	
ACC 442 Advanced Cost Accounting (3)	
ACC 444 Advanced Tax Accounting (3)	
ACC 450 Internal Auditing (3)	
ACC 451 Advanced Internal Auditing (3)	
ACC 475 International Accounting (3)	

**Total:** ..... **21 hours**

## Accounting Courses

**ACC 130 Accounting for Non-business Majors** **3 hrs**  
Introduction to financial information generated by typical business organizations, with special emphasis on the use and interpretation of this information in managerial and financial decision-making process. *May not be substituted for ACC 240. Not open to students with credit for ACC 240 or ACC 241.*

*Prereq: Any college-level algebra course.*

**ACC 177/178/179 Special Topics** **1/2/3 hrs**  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**ACC 240 Principles of Accounting I** **3 hrs**  
Use and development of financial information about economic organizations, with special emphasis on the use of financial statements and their creation in the business decision-making and reporting process.

**ACC 241 Principles of Accounting II** **3 hrs**  
Use and development of accounting information in managerial settings to achieve managerial goals. Use of managerial accounting tools such as budgets and cost analysis in typical business environments.

*Prereq: ACC 240.*

**ACC 244 Personal Tax Accounting** **2 hrs**  
Introduction to federal and state income and social security tax problems of individuals. Practice on preparation of individual tax returns.

*Credit toward a degree will not be permitted for both ACC 244 and ACC 344. (Business education majors may substitute this course for ACC 344 with permission of their department head.)*

**ACC 246 Accounting for Public Administrators** 3 hrs  
Surveys the use of accounting to manage a public organization. Basic accounting principles, program budgeting, and the construction of internal control systems.

**ACC 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**ACC 286 Cooperative Education in Accounting** 1 hr  
Accounting employment at a business or public organization imparting a practical experience in accounting. Position may be part-time, volunteer, or less than full-semester in duration. Use on an accounting major or minor is not permitted. Graded credit/no credit. Admittance by application only. This course may be repeated once for additional credit.

*Prereq: Department permission.*

**ACC 287 Cooperative Education in Accounting** 3 hrs  
One term of full-time or two terms of part-time employment at a business or public organization chosen for imparting practical experience in accounting. Use on an accounting major or minor is not permitted. Graded credit/no credit. Admittance by application only. This course may be repeated once for additional credit.

*Prereq: Department permission.*

**ACC 340 Intermediate Accounting I** 3 hrs  
Review of recording and reporting procedures; accounting concepts and theories guiding the valuation and classification of current assets, plant assets, intangible assets and current liabilities.

*Prereq: ACC 241.*

**ACC 341 Intermediate Accounting II** 3 hrs  
Capital stock, rights, options, and retained earnings; long-term liabilities; income tax allocation; long-term investments; prior-period adjustments; funds flow; price level accounting; consignments; installment sales.

*Prereq: ACC 340.*

**ACC 342 Managerial Cost Accounting** 3 hrs  
Accounting information for use in planning objectives and controlling operations. A framework for measuring managerial performance is developed through an analytic treatment of cost behavior under dynamic conditions by employing such devices as cost-volume-profit relationships, flexible budgeting and standards.

*Prereq: ACC 241.*

**ACC 344 Tax Accounting** 3 hrs  
History of the income tax; the tax legislative process; tax research; income and loss realization and recognition; capital gains and losses; exclusions; deductions; losses; exemptions; rates, personal tax returns.

*Prereq: ACC 241.*

**ACC 346 Governmental Accounting** 3 hrs  
Accounting philosophy for nonprofit organizations; principles of fund accounting; the budget process, including program budgeting; institutional (college, hospital, welfare agency) accounting; internal control; data processing.

*Prereq: ACC 241.*

**ACC 356 Accounting Information Systems** 3 hrs  
Concepts of a responsive information system, including principles of design, profitability and responsibility, accounting and control. Descrip-

tion of typical accounting systems and procedures within the business enterprise.

*Prereq: ACC 241 or department permission.*

**ACC 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**ACC 440 Advanced Accounting** 3 hrs  
Consolidation accounting; partnership organization, change and liquidation; fiduciary accounting; introduction to governmental accounting.

*Prereq: ACC 341.*

**ACC 442 Advanced Cost Accounting** 3 hrs  
Cost concepts on an advanced level such as standard costs-and-variance analysis; responsibility accounting, direct costing, overhead allocation, break-even; product pricing through return-on-investment methods; divisional income measurement; forecasting with statistical models; capital budgeting; applications of mathematics to cost accounting problems.

*Prereq: ACC 342.*

**ACC 444 Advanced Tax Accounting** 3 hrs  
Tax law applicable to partnerships and corporations; operation distributions; reorganization and liquidation.

*Prereq: ACC 344.*

**ACC 445 Auditing** 3 hrs  
Audit standards, professional responsibility, ethics, internal control evaluation, statistical sampling, and audit of EDP systems.

*Prereq: ACC 356.*

**ACC 447 Contemporary CPA Problems** 3 hrs  
Analysis of current accounting problems faced by the CPA profession. Audit, legal liability, ethics, and theory and practice.

*Prereq: ACC 440.*

**ACC 448 EDP Auditing and Controls** 3 hrs  
A comprehensive coverage of electronic data processing (EDP) auditing from both a theoretical and pragmatic point of view with special emphasis on control features of a system and its purpose.

*Prereq: ACC 356 or department permission.*

**ACC 450 Internal Auditing** 3 hrs  
Introduction to the profession of internal auditing. Includes professional standards, techniques, scientific methods, reporting, operational auditing and internal audit management.

*Prereq: ACC 241.*

**ACC 451 Advanced Internal Auditing** 3 hrs  
Continued study of the profession of internal auditing. The focus of this course will be on the advanced study of topics that were briefly discussed in the introductory course. Special emphasis will be placed on applying the concepts learned in the introductory course by performing various exercises with practical (real world) applications.

*Prereq: ACC 450.*

**ACC 456 Accounting Information Systems Implementation and Projects** 3 hrs  
A capstone course for the accounting information systems major designed to develop expertise in the implementation of an accounting information system.

*Prereq: ACC 356 and IS 380, or department permission.*

**ACC 475 International Accounting** 3 hrs  
Introduction to accounting in an international environment. Includes the study of environmental factors, performance evaluation, financial reporting, and specific accounting and auditing problems.  
*Prereq: ACC 241, or department permission.*

**ACC 477/478/479 Special Topics** 1/2/3 hrs  
Specialized accounting topics in relation to changes in the practice of accounting and its regulation by government agencies.  
*Prereq: Department permission and ACC 341.*

**ACC 489 Accounting Internship** 3 hrs  
Directed full-time work experience in the accounting phase of a business organization. Use on an accounting major or minor is not permitted. This course may be repeated once for additional credit. Credit/no credit.  
*Prereq: Department permission. To be used as an elective only; does not apply on a major or minor.*

**ACC 491 Accounting Honors Thesis** 3 hrs  
A directed studies course for accounting honors students only. An in-depth research thesis or project under the direction of an accounting faculty member is required with an oral examination or form of presentation to the faculty and other interested parties upon completion of the thesis.  
*Prereq: Final semester in undergraduate accounting Honors Program.*

**ACC 497/498/499 Directed Studies** 1/2/3 hrs  
Directed study of a problem or group of problems in accounting not otherwise treated in departmental courses.  
*Prereq: Department permission.*

### Open to Upperclass and Graduate Students

**ACC 541 Advanced Financial Accounting** 3 hrs  
Specialized topics in accounting with major emphasis on conceptual aspects and reporting of consolidated financial statements, international accounting challenges and foreign currency reporting issues.  
*Prereq: ACC 341 or department permission.*

**ACC 544 Theory of Individual Taxation** 3 hrs  
Introduction of the principles of taxation as they relate to individuals in the United States. Among topics covered are: the tax legislative process, income and loss realization, and recognition and tax planning issues.  
*Prereq: ACC 501 Accounting Principles or department permission.*

**ACC 546 Public and Nonprofit Sector Accounting** 3 hrs  
Accounting issues in governmental and nonprofit entities, including financial reporting, managerial accounting, information systems, auditing, and regulatory and taxation issues. Also included is the S.E.C.'s role in financial reporting.  
*Prereq: ACC 341 or department permission.*

### Decision Science Courses

**DS 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**DS 265 Business Statistics I** 3 hrs  
Concepts of statistics and applications to business decisions. Elements of probability, random samples, descriptive statistics, sampling distributions, point and interval estimation, hypothesis testing, chi-square analysis, and regression and correlation analysis.  
*Prereq: IS 215 and either MATH 118, or MATH 120 or MATH 122.*

**DS 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**DS 317 System Simulation** 3 hrs  
Computer-based simulation techniques for business analysis and decision making. Random number and process generators, system simulation models, and specialized computer simulation languages. Simulation of discrete time systems and the GPSS language.  
*Prereq: IS 215 and DS 265.*

**DS 367 Business Statistics II** 3 hrs  
A continuation of the statistical methodology developed in Business Statistics I. Topics include two-sample interval estimation and hypothesis tests, inference about the population variance, and simple and multiple regressions.  
*Prereq: DS 265.*

**DS 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**DS 387 Cooperative Education in Decision Science** 3 hrs  
Four months of full-time employment at a business or public organization to impart practical experience in decision science disciplines. Credit/no credit basis for general elective credit only. Admittance by application only.  
*Prereq: Completion of three hours in decision science systems area. Department permission.*

**DS 465 Applied Linear Statistical Models** 3 hrs  
An introduction to linear models with an emphasis on business applications. Topics include multiple linear regression models, analysis of variance and multivariate data analysis. Computer packages will be used.  
*Prereq: DS 265.*

**DS 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**DS 487 Cooperative Education in Decision Science** 3 hrs  
Four months of full-time employment at a business or public organization to impart practical experience in decision science disciplines. Credit/no credit basis for general elective credit only. Admittance by application only.  
*Prereq: DS 387. Department permission.*

**DS 497/498/499 Independent Study** 1/2/3 hrs  
Directed study of a problem or group of problems in decision science.  
*Prereq: Department permission.*

# Finance and Computer Information Systems

Web site: [www.emich.edu/public/fcis/fcishome.html](http://www.emich.edu/public/fcis/fcishome.html)

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**Professors:** S. Imtiaz Ahmad, Alahassane Diallo, Badie N. Farah, Ramesh C. Garg, Asad Khailany, Stevan Mrdalj, Pedro P. Sanchez, Charles S. Saxon, Fathi F. Sokkar, Asrat Tessema, V.M. Rao Tummala, Nesa L-J Wu

**Associate Professors:** Juan C. Esteva, Robert Hanson, Ronald E. Hutchins, Wafa Khorsheed, Robert M. Kiss, Michel Mitri

**Assistant Professor:** Duncan Kretovich

The Finance area prepares students for professional careers related to the fields of finance. Students can develop their expertise in a variety of areas including corporate financial analysis, budgeting, banking, investments and appraisal.

The Computer Information Systems area prepares students for careers in business information systems, and the Production/Operations Management area unit prepares students for careers in production and operations management.

## Programs of Study

### Majors:

Computer information systems  
 Finance

### Minors:

Computer information systems  
 Finance  
 Production/operations management

Advising assistance, both academic and career, is provided by the faculty and is available Monday through Friday while school is in session, or by appointment.

**Advising coordinator:** Asrat Tessema

Graduate study leads to the Master of Business Administration with concentration in finance, CIS and POM or the Master of Science degree in Information Systems (M.S.I.S.). These degree programs and courses are described in the graduate catalog.

## Computer Information Systems Major

**ISIS major code: OR06**

Computer information systems emphasizes the role and application of the computer in making management decisions. Students are prepared for careers as systems analysts, programmers, software engineers, database specialists, and information systems and database management administrators.

The general requirements for the Bachelor of Business Administration degree, the academic major requirements below, and sufficient electives to meet the minimum of 124 credit hours for graduation, must be completed.

**Academic Major: ..... 65**

**Business Core: ..... 21**

- ACC 240 Principles of Accounting I ..... 3
- ACC 241 Principles of Accounting II ..... 3
- COB 200 Introduction to Business ..... 3
- LAW 293 Legal Environment of Business ..... 3
- MGMT 202 Business Communication ..... 3

- #IS 215 End-User Computing (satisfies general education requirement I.5) ..... 3
- DS 265 Business Statistics I ..... 3

**Business Administration Core: ..... 15**

*(All 200-level core courses listed above must be completed prior to admission to the College of Business.)*

- FIN 350 Principles of Finance ..... 3
- MKTG 360 Principles of Marketing ..... 3
- MGMT 386 Organizational Behavior and Theory ..... 3
- POM 374 Introduction to Production/Operations Management ..... 3
- MGMT 490 Business Policy ..... 3

*(All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)*

**Specialization: ..... 30**

- IS 219 File Processing and COBOL Programming ..... 3
- IS 247 Software Design and Programming in Business ..... 3
- IS 315 Applied Data Structures ..... 3
- IS 375 Advanced Software Design and Programming ..... 3
- IS 380 Introduction to Databases ..... 3
- IS 417 Systems Analysis and Design ..... 3
- IS 420 Business Data Communications and Computer Networks ..... 3
- IS 442 Information Resource Management ..... 3
- IS 449 Information Systems Development and Implementation Projects ..... 3
- Choose one course from the following: ..... 3*
- IS 280 Introduction to Expert Systems in Business (3)
- IS 410 Knowledge-Based Systems (3)
- IS 413 Evaluation and Application of Computer Hardware (3)
- IS 416 Computer Operating Systems (3)
- IS 421 Advanced Database Design (3)
- IS 425 Software Engineering Management (3)
- IS 426 Advanced Structured COBOL Programming (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cob/fcis/ugrad/major/cis.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cob/fcis/ugrad/major/cis.html).

## Finance Major

**ISIS major code: FN02**

The finance major is designed for students interested in planning and managing assets and the acquisition of funds for investment by corporations, nonprofit organizations, governmental units and financial institutions.

The general requirements for the Bachelor of Business Administration degree, the academic major requirements below, and sufficient electives to meet the minimum of 124 credit hours, must be completed for graduation.

**Academic Major: ..... 60**

**Business Core: ..... 21**

- ACC 240 Principles of Accounting I ..... 3
- ACC 241 Principles of Accounting II ..... 3
- COB 200 Introduction to Business ..... 3
- LAW 293 Legal Environment of Business ..... 3
- MGMT 202 Business Communication ..... 3
- #IS 215 End-User Computing (satisfies general education requirement I.5) ..... 3
- DS 265 Business Statistics I ..... 3



**Business Administration Core:** ..... 15

(All 200-level core courses listed above must be completed prior to admission to the College of Business.)

- FIN 350 Principles of Finance ..... 3
- MKTG 360 Principles of Marketing ..... 3
- MGMT 386 Organizational Behavior and Theory ..... 3
- POM 374 Introduction to Production/Operations Management ..... 3
- MGMT 490 Business Policy ..... 3

(All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)

**Specialization:** ..... 24

- FIN 354 Investments ..... 3
- FIN 357 Financial Markets and Institutions ..... 3
- FIN 358 Analysis of Financial Statements or ACC 340 Intermediate Accounting I ..... 3
- FIN 359 Intermediate Financial Theory ..... 3
- FIN 450 Problems in Financial Management ..... 3
- Choose two: ..... 6
  - FIN 370 International Business Finance (3)
  - FIN 451 Introduction to Speculative Markets (3)
  - FIN 453 Commercial Banking (3)
- Choose one: ..... 3
  - FIN 454 Mortgage Banking (3)
  - FIN 479 Special Topics (3)
  - INS 351 Introduction to Risk and Insurance (3)
  - ACC 341 Intermediate Accounting II (3)
  - ECON 445 Economic Fluctuations and Forecasting (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cob/fcis/ugrad/major/fin.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cob/fcis/ugrad/major/fin.html).

**Finance Major—Banking Track**

ISIS major code: FN0205

**Academic Major:** ..... 63

**Business Core:** ..... 21

- ACC 240 Principles of Accounting I ..... 3
- ACC 241 Principles of Accounting II ..... 3
- COB 200 Introduction to Business ..... 3
- LAW 293 Legal Environment of Business ..... 3
- MGMT 202 Business Communication ..... 3
- #IS 215 End-User Computing (satisfies general education requirement I.5) ..... 3
- DS 265 Business Statistics I ..... 3

**Business Administration Core:** ..... 15

(All 200-level core courses listed above must be completed prior to admission to the College of Business.)

- FIN 350 Principles of Finance ..... 3
- MKTG 360 Principles of Marketing ..... 3
- MGMT 386 Organizational Behavior and Theory ..... 3
- POM 374 Introduction to Production/Operations Management ..... 3
- MGMT 490 Business Policy ..... 3

(All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)

**Specialization:** ..... 27

- ACC 340 Intermediate Accounting I ..... 3
- FIN 354 Investments ..... 3
- FIN 357 Financial Markets and Institutions ..... 3
- FIN 359 Intermediate Financial Theory ..... 3

- FIN 450 Problems in Financial Management ..... 3
- FIN 453 Commercial Banking ..... 3
- FIN 454 Mortgage Banking ..... 3
- FIN 479 Special Topics ..... 3
- Choose one: ..... 3
  - FIN 370 International Business Finance (3)
  - FIN 451 Introduction to Speculative Markets (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cob/fcis/ugrad/major/bank.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cob/fcis/ugrad/major/bank.html).

**Computer Information Systems Minor**

(For non-business majors)

ISIS minor code: OR01

- \*#IS 215 End-User Computing (satisfies general education requirement I.5) ..... 3
- IS 219 File Processing and COBOL Programming ..... 3
- IS 247 Software Design and Programming in Business ..... 3
- IS 417 Systems Analysis and Design ..... 3
- POM 476 Production and Inventory Control II ..... 3
- MGMT 386 Organizational Behavior and Theory ..... 3
- Choose one: ..... 3
  - IS 315 Applied Data Structures (3)
  - IS 416 Computer Operating Systems (3)
  - IS 380 Introduction to Databases (3)
  - IS 420 Business Data Communications and Computer Networks (3)
  - IS 426 Advanced Structured COBOL Programming (3)
  - ACC 356 Accounting Information Systems (3)

**Total:** ..... 21 hours

#Advising note: This course satisfies both general education requirements and requirements of the minor. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

**Finance Minor**

(For non-business majors)

ISIS minor code: FN01

- ACC 240 Principles of Accounting I ..... 3
- ACC 241 Principles of Accounting II ..... 3
- FIN 350 Principles of Finance ..... 3
- FIN 359 Intermediate Financial Theory ..... 3
- Choose three: ..... 9
  - FIN 354 Investments (3)
  - FIN 358 Analysis of Financial Statements (3)
  - FIN 450 Problems in Financial Management (3)
  - FIN 451 Introduction to Speculative Markets (3)
  - FIN 453 Commercial Banking (3)
  - FIN 479 Special Topics (3)
  - FIN 370 International Business Finance (3)

**Total:** ..... 21 hours

**Production/Operations Management Minor**

(For non-business majors)

ISIS minor code: OR02

- ACC 342 Managerial Cost Accounting ..... 3
- POM 374 Introduction to Production/Operations Management ..... 3
- MGMT 386 Organizational Behavior and Theory ..... 3

POM 474 Design of the Production/Operations System .....	3
POM 475 Production and Inventory Control I .....	3
Choose two: .....	6
IS 219 File Processing and COBOL Programming (3)	
IS 417 Systems Analysis and Design (3)	
ACC 356 Accounting Information Systems (3)	
MGMT 384 Human Resource Management (3)	
PSY 351 Industrial Psychology (3)	
<b>Total:</b> .....	<b>21 hours</b>

### Finance Courses

<b>FIN 177/178/179 Special Topics</b>	<b>1/2/3 hrs</b>
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.	
<i>Prereq: Department permission.</i>	
<b>FIN 277/278/279 Special Topics</b>	<b>1/2/3 hrs</b>
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.	
<i>Prereq: Department permission.</i>	
<b>FIN 287 Cooperative Education in Finance</b>	<b>3 hrs</b>
Four months of full-time employment at a business or public organization in a finance position chosen for imparting practical experience in finance. Use on a finance major or minor not permitted. Credit/no credit. Admittance by application only.	
<i>Prereq: ACC 240 and department permission.</i>	
<b>FIN 350 Principles of Finance</b>	<b>3 hrs</b>
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.	
<i>Prereq: ACC 241.</i>	
<b>FIN 352 Financial Management for Entrepreneurs</b>	<b>3 hrs</b>
A continuation of FIN 350, 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.	
<i>Prereq: FIN 350 or equivalent.</i>	
<b>FIN 354 Investments</b>	<b>3 hrs</b>
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.	
<i>Prereq: FIN 350.</i>	
<b>FIN 357 Financial Markets and Institutions</b>	<b>3 hrs</b>
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.	
<i>Prereq: FIN 350.</i>	

**FIN 358 Analysis of Financial Statements** **3 hrs**  
 Analysis and interpretation of the financial statements and reports of various types of businesses and industries. Examination of the impact of using alternative accounting methods on reported profits, taxes and cash flows. Forecast of financial statements for planning purposes.  
*Prereq: FIN 350.*

**FIN 359 Intermediate Financial Theory** **3 hrs**  
 Focuses on the theory of financial management and analysis of financial decisions made by financial managers. The financial decisions include capital structure, dividend policy, lease or buy, mergers and issuance of new securities.  
*Prereq: FIN 350.*

**FIN 370 International Business Finance** **3 hrs**  
 This course deals with how decisions about financial management are made in modern multinational enterprises. Financial management of any firm involves acquisition of funds, investing of these funds in economically productive assets, the managing of assets so acquired, and eventual reconversion of some of the productive assets into funds to return to the original investors, creditors, suppliers, employees and other interest groups. International Business Finance deals with the management of these functions for firms operating in several countries.  
*Prereq: FIN 350 or equivalent.*

**FIN 377/378/379 Special Topics** **1/2/3 hrs**  
 These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.  
*Prereq: Department permission.*

**FIN 387 Cooperative Education in Finance** **3 hrs**  
 Four months of full-time employment at a business or public organization in a finance position chosen for imparting practical experience in finance. Use on a finance major or minor not permitted. Credit/no credit. Admittance by application only.  
*Prereq: FIN 287. Department permission.*

**FIN 450 Problems in Financial Management** **3 hrs**  
 Deals with application of financial management theory. Emphasis is placed on problem solving in differing economic and situational environments using various quantitative tools. Case analysis and class discussions are emphasized.  
*Prereq: FIN 359.*

**FIN 451 Introduction to Speculative Markets** **3 hrs**  
 This course is designed to provide a solid foundation in the principles of derivatives. It attempts to strike a balance between institutional details, theoretical foundations and practical applications. Options and futures will be the primary focus.  
*Prereq: FIN 354 or equivalent.*

**FIN 453 Commercial Banking** **3 hrs**  
 Practices, policies, and problems of commercial bank management and operation, capital adequacy, loan and investment policy, liquidity and profit maximization.  
*Prereq: FIN 350.*

**FIN 454 Mortgage Banking** **3 hrs**  
 The purpose of this course is to communicate and explain the fundamentals of mortgage lending in as simple and concise a manner as possible. A good portion of the course deals with real estate appraisal.  
*Prereq: FIN 350 or equivalent.*

**FIN 477/478/479 Special Topics**

1/2/3 hrs

These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.

*Prereq: Department permission.*

**FIN 487 Cooperative Education in Finance**

3 hrs

Four months of full-time employment at a business or public organization in a finance position chosen for imparting practical experience in finance. Use on a finance major or minor not permitted. Credit/no credit. Admittance by application only.

*Prereq: FIN 387, department permission.*

**FIN 489 Internship**

3 hrs

Directed full-time work experience in the finance phase of a business or public organization. Use on a finance major or minor not permitted. May be repeated once for additional credit. Graded credit/no credit. Admittance by application only.

*Prereq: Department permission.*

**FIN 497/498/499 Independent Study**

1/2/3 hrs

Directed study of a problem or group of problems in finance.

*Prereq: Department permission.*

**Insurance Courses****INS 177/178/179 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**INS 277/278/279 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**INS 351 Introduction to Risk and Insurance**

3 hrs

An introduction to study of pure risks, risk management and insurance, with emphasis on the application of risk management principles, and techniques of handling the pure risks of business firms and public institutions. Topics covered include nature and types of risks, risk management process, and types and uses of insurance.

*Prereq: ACC 241.*

**INS 377/378/379 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**INS 477/478/479 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**Computer Information Systems Courses****IS 177/178/179 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**IS 215 End-User Computing**

3 hrs

Computers are being used more extensively by managers and professionals. This revolution is known by the name "End-User Computing" (EUC). Students learn traditional information systems topics such as software life cycles, transaction processing systems, and business problem solving. In addition, a wide range of applications including Decision Support Systems, Executive Information Systems, Nonclerical 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.

*Prereq: MATH 118.*

**IS 219 File Processing and COBOL Programming**

3 hrs

COBOL programming is an important skill for business application developers. In this class, students will learn to program in COBOL while also learning the basic algorithms for producing reports with multiple control breaks and for processing sequential and random files. All students will design, write, debug and test COBOL programs using good design techniques and software engineering principles. Intended for computer information systems majors, and others.

**IS 247 Software Design and Programming in Business**

3 hrs

Business computer programmers must be able to use problem-solving techniques, appropriate algorithms, and follow the principles of software engineering to develop good computer solutions to business problems. In this class, the students will study these topics and apply them in the design, writing, debugging and testing of several programs. This is the first of a sequence of three courses, the others being IS 315 and IS 375.

*Prereq: IS 215 and IS 219.*

**IS 277/278/279 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**IS 280 Introduction to Expert Systems in Business**

3 hrs

This course covers concepts of decision support systems and expert systems as they are applied to practical business problems. Students will learn methods of artificial intelligence and decision analysis, and gain practical experience using DSS and AI software tools for designing business solutions.

*Prereq: IS 215.*

**IS 315 Applied Data Structures**

3 hrs

Business computer programmers must have a good knowledge of basic data structures such as linked lists, trees, and networks to permit them to design appropriate computer solutions to the more difficult problems they are typically being asked to solve. In this class, the students will study these data structures and apply them in the design, writing, debugging, and testing of several programs in some suitable high-level language. This is the second of a sequence of three courses, the others being IS 247 and IS 375.

*Prereq: IS 247.*

**IS 375 Advanced Software Design and Programming**

3 hrs

Software development methods and tools are constantly changing, and it is imperative that developers keep up with recent trends. This course concentrates on creating real-world programs using the latest tools and techniques. Students will gain practical experience in various aspects of programming, including graphic interfaces, database manipulation, object-oriented techniques and internetworking. In this project-oriented course students will be exposed to modern development environments, and will build on the skills learned in the earlier programming classes.

*Prereq: IS 315.*

**IS 377/378/379 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**IS 380 Introduction to Databases**

3 hrs

This course covers basic concepts of database design and implementation, primarily focusing on desk top database applications. This is a hands-on, practical course concentrating on use of desk top DBMS software. Topics covered include: overview of data models, introduction to SQL and QBE, practical applications of database technology.

*Prereq: IS 215.*

**IS 387 Cooperative Education in Information Systems**

3 hrs

Four months of full-time employment at a business or public organization to impart practical experience in computer information systems disciplines. Credit/no credit basis for general elective credit only. Admittance by application only.

*Prereq: Completion of three hours in computer information systems area. Department permission.*

**IS 410 Knowledge-Based Systems**

3 hrs

Modern knowledge-based software is being used increasingly in all business activities. Techniques such as English language database queries and expert systems have moved from the realm of research laboratories to everyday business use in the last few years. Business computer professionals of the future will be expected to be skilled in the use of a wide variety of knowledge-based software and knowledge engineering techniques. This class will study one important programming language and its application to several knowledge-based systems. Each student will design and implement several computer programs.

*Prereq: IS 315.*

**IS 413 Evaluation and Application of Computer Hardware**

3 hrs

Evaluation of computer hardware found in business computer systems. A nontechnical explanation of the operation, needs, and limits of CPUs and peripherals; practical demonstrations of the hardware: CPUs, memory printers, disks, terminals, communications and related software.

*Prereq: IS 219.*

**IS 416 Computer Operating Systems**

3 hrs

Decision methods and concepts for determining the types of computer operating systems required for a particular business environment. Various operating system designs with respect to allocation and utilization of resources; the acceptance, executive, and presentation portions of the systems; large and small operating systems to be considered for the business environment.

*Prereq: IS 215.*

**IS 417 Systems Analysis and Design**

3 hrs

Computer-based information systems exist everywhere in business and industry. People armed with the necessary tools are the key to both successful development and performance of these systems. The objective of this course is to introduce students to processes, principles, guidelines, tools and techniques for systems analysis and design of information systems. The major thrust of the course is to aid the communication process that must take place between the system developers and users. This is facilitated by the use of projects as a vehicle for effectively communicating the content of this course.

*Prereq: IS 215 and IS 219.*

**IS 420 Business Data Communications and Computer Networks**

3 hrs

In an information-based society, knowledge of data communications and computer networks is important to everyone who works with computers. This course is intended to teach students everything they need to

know to be effective participants in the establishment of data communications links for their employers. This course assumes no prior data communications and computer networks knowledge. It combines technical aspects with practical business applications without resorting to a rigorous mathematical approach.

*Prereq: IS 215.*

**IS 421 Advanced Database Design**

3 hrs

This course covers advanced SQL, normalization, detailed discussion of relational data models, hierarchical models, and network models, client server databases (front-end and back-end), distributed DBMS, and data warehousing. It involves intensive use of advanced DBMS tools.

*Prereq: IS 380 and IS 417.*

**IS 425 Software Engineering Management**

3 hrs

Introduction of the concept and techniques of managing software growth and software life cycle, increasing software productivity reliability, correctness, and predicting software costs. Legal and ethical aspects of software, and human factors, are discussed.

*Prereq: IS 417.*

**IS 426 Advanced Structured COBOL Programming**

3 hrs

Students work in teams developing integrated information systems in structured COBOL. Searches, reporting, subprograms, random files, indexed sequential files, various sorting routines, debugging techniques, programming style, optimization techniques, structured and modular programming concepts, transferability and portability strategies, and documentation, including writing program specifications and users' manuals.

*Prereq: IS 417.*

**IS 442 Information Resource Management**

3 hrs

Most organizations use computers for operations, control and planning, and for office automation. While computers facilitate and enhance the functioning of organizations, they also add to the responsibilities of managers. In this course, students learn how to acquire, organize, monitor and control information resources. The course also discusses problems unique to the management of information resources.

*Prereq: Nine hours of IS courses, not including IS 215.*

**IS 449 Information Systems Development and Implementation Projects**

3 hrs

This is the capstone course. Students work in teams to develop information systems for real-life organizations. These organizations include local businesses, industries, nonprofit organizations, governmental institutions and universities. Classes start with short lectures. The subject matter is then applied to the various projects by the teams with the help of the instructor. The objective of the discussion is to support the students in producing quality operational information systems. Examples are drawn from students' projects to facilitate discussion.

*Prereq: IS 315, IS 380, and IS 417.*

**IS 477/478/479 Special Topics**

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**IS 487 Cooperative Education in Information Systems**

3 hrs

Four months of full-time employment at a business or public organization to impart a practical experience in computer information systems disciplines. Credit/no credit basis for general elective credit only. Admittance by application only.

*Prereq: IS 387, department permission.*

**IS 489 Internship**

3 hrs

Directed full-time work experience in the business computer systems units of a business organization. This course may be repeated for a maxi-



mum of six hours.

*Prereq: Major and department permission.*

**IS 497/498/499 Independent Study** 1/2/3 hrs

Directed study of a problem or group of problems in production systems or management science.

*Prereq: Department permission.*

**Production/Operations Management Courses**

**POM 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**POM 277/278/279 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**POM 374 Introduction to Production/Operations Management** 3 hrs

The major design, operation and control problems of production/operations management in manufacturing and service organizations. Topics include product or service design; facilities location, design and layout; productivity, including job design, standards and incentive plans; materials management, including forecasting, purchasing and inventory control; production control; quality assurance and control.

*Prereq: DS 265.*

**POM 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**POM 387 Cooperative Education in Operations Research** 3 hrs

Four months of full-time employment at a business or public organization to impart practical experience in production/operations management disciplines. Credit/no credit basis for general elective credit only. Admittance by application only.

*Prereq: Completion of three hours in production/operations management area. Department permission.*

**POM 390 Management Systems** 3 hrs

Various concepts of systems theory and their applications to management. The environment and boundaries of a system, organizational information flows and the firm as a system, cybernetics and communication theory, and the management of large-scale systems.

*Prereq: MGMT 386.*

**POM 472 Tools for Strategic Quality Management** 3 hrs

Examination of "Enumerative" and "Analytic" statistical studies of quality management. Emphasis is given on how to diagnose an unstable process and how to improve a stable process through analysis of control charts and other management tools for continuous improvement. Major modern philosophies by Deming and Taguchi as well as others, concerning quality management, are discussed.

*Prereq: POM 374.*

**POM 474 Design of the Production/Operations System** 3 hrs

An in-depth qualitative, quantitative and computerized analysis of problems related to the design of manufacturing and non-manufacturing systems. Product service design, process planning, facilities planning, job design and measurement, and maintenance planning and control.

*Prereq: POM 374.*

**POM 475 Production and Inventory Control I** 3 hrs

The main objective of this course is to provide students with a solid background in several topics in the field of production and inventory control. Specifically, an in-depth analysis of the following topics is covered: strategic planning; forecasting of demand and its relationships to production planning; master production scheduling and demand management; material requirements planning; and capacity management. These topics are discussed within the frame work of production-to-stock, assemble- or finish-to-order, with production-to-order. A secondary objective of this course is to provide students with material necessary to start preparing for the certification exams of the American Production and Inventory Control Society (APICS) in master planning, and material and capacity requirements planning.

*Prereq: POM 374.*

**POM 476 Production and Inventory Control II** 3 hrs

The main objective of this course is to provide students with a solid background in several topics in the field of production and inventory control. Specifically, an in-depth analysis of the following topics is covered: inventory management and distribution requirements planning (DRP), production activity control (PAC), purchasing management, project management, just-in-time and the role of quality management. A secondary objective of this course is to provide students with the material necessary to start preparing for the CPIM exams of the American Production and Inventory Control Society (APICS) in inventory management, production activity control, and just-in-time.

*Prereq: POM 374.*

**POM 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**POM 480 Production/Operations Management-A World Business View** 3 hrs

A discussion of similarities and differences in concepts and techniques used worldwide in Production/Operations Management. American, European, and Japanese systems are compared and analyzed throughout this course. Comparative topics in POM include productivity, management, product/service design, process planning and manufacturing technology, facilities planning, maintenance and quality management, production/inventory planning and control system, and planning and control of repetitive manufacturing.

*Prereq: POM 374 or equivalent.*

**POM 487 Cooperative Education in Operations Research** 3 hrs

Four months of full-time employment at a business or public organization to impart practical experience in production/operations management disciplines. Credit/no credit basis for general elective credit only. Admittance by application only.

*Prereq: POM 387, department permission.*

**POM 489 Internship Program** 3 hrs

Directed full-time work experience in the production/operations management units of a business organization. This course may be repeated for a maximum of six hours.

*Prereq: Major and department permission.*

**POM 497/498/499 Independent Study** 1/2/3 hrs

Directed study of a problem or group of problems in production systems or management science.

*Prereq: Department permission.*

# Management

Web site: [www.emich.edu/public/cob/management/home.html](http://www.emich.edu/public/cob/management/home.html)

**Fraya Wagner-Marsh**  
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**Professors:** P. Nick Blanchard, Richard R. Camp, Robert P. Crouner, Sahab Dayal, Deborah Ettington, Raymond E. Hill, Gregory E. Huszczo, Jean M. McEnery, Denise Tanguay, Stewart L. Tubbs, Lorraine Uhlander, David A. Victor, Mary E. Vielhaber, Fraya C. Wagner-Marsh, John L. Waltman  
**Associate Professors:** Jean Bush-Bacelis, Pradeep Chowdhry, Jagdish T. Danak, Stephanie E. Newell

Graduates from Eastern's Management department 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's Management graduates understand and are able to apply the behavioral sciences in planning, implementation, communication, organizational design and development, and in performance measurement to maximize organizational and employee achievement.

## Programs of Study

### Majors:

- General business
- Management

### Minors:

- General Business
- Management

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 course 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 and a concentration in entrepreneurship is available under the general business major. See your adviser for details.

**Advising Coordinator:** Fraya Wagner-Marsh

Details on the department's innovative Master of Science degree in human resource organizational development (HR/OD) are available in the graduate catalog.

## General Business Major

**ISIS major code: MG04**

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 credit hours for graduation as stipulated in the catalog.

**Academic Major:** ..... 60

**Business Core:** ..... 21

- ACC 240 Principles of Accounting I ..... 3
- ACC 241 Principles of Accounting II ..... 3
- COB 200 Introduction to Business ..... 3
- LAW 293 Legal Environment of Business ..... 3
- MGMT 202 Business Communication ..... 3
- #IS 215 End-User Computing (satisfies general education requirement I.5) ..... 3
- DS 265 Business Statistics I ..... 3

**Business Administration Core:** ..... 15

*(All 200-level core courses listed above must be completed prior to admission to the College of Business.)*

- FIN 350 Principles of Finance ..... 3
- MKTG 360 Principles of Marketing ..... 3
- MGMT 386 Organizational Behavior and Theory ..... 3
- POM 374 Introduction to Production/Operations Management ..... 3
- MGMT 490 Business Policy ..... 3

*(All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)*

**Specialization:** ..... 24

- MGMT 384 Human Resource Management ..... 3
- MGMT 388 Introduction to Entrepreneurship ..... 3
- MGMT 460 Management Skills ..... 3
- MGMT 480 Management Responsibility and Ethics ... 3
- Twelve hours of restricted electives must come from at least 3 different departments in the College of Business. At least 6 hours must be at the 300 or 400 level.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cob/mgmt/ugrad/major/genbiz.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cob/mgmt/ugrad/major/genbiz.html).

## Management Major

**ISIS major code: MG02**

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 credit hours for graduation as stipulated in the catalog.

**Academic Major:** ..... 63

**Business Core:** ..... 21

- ACC 240 Principles of Accounting I ..... 3
- ACC 241 Principles of Accounting II ..... 3
- COB 200 Introduction to Business ..... 3
- LAW 293 Legal Environment of Business ..... 3
- MGMT 202 Business Communication ..... 3
- #IS 215 End-User Computing (satisfies general education requirement I.5) ..... 3
- DS 265 Business Statistics I ..... 3

**Business Administration Core:** ..... 15

*(All 200-level core courses listed above must be completed prior to admission to the College of Business.)*

- FIN 350 Principles of Finance ..... 3
- MKTG 360 Principles of Marketing ..... 3
- MGMT 386 Organizational Behavior and Theory ..... 3
- POM 374 Introduction to Production/Operations Management ..... 3
- MGMT 490 Business Policy ..... 3

*(All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)*

**Specialization:** ..... 27

- MGMT 384 Human Resource Management ..... 3
- MGMT 460 Management Skills ..... 3
- MGMT 480 Management Responsibility and Ethics ... 3
- MGMT 486 Organizational Change and Team Building ..... 3
- Choose four: ..... 12
- MGMT 388 Introduction to Entrepreneurship (3)
- MGMT 402 Business Report Writing or MGMT 403 Managerial Communication: Theory and Application (3)

- MGMT 450 Leadership Theories and Practice (3)
- MGMT 479 Special Topics (3)
- MGMT 482 Compensation Administration (3)
- MGMT 483 Staffing Organizations (3)
- MGMT 484 Management-Union Relations (3)
- MGMT 485 Human Resource Development (3)
- MGMT 492 Managing World Business  
Communication or MGMT 495 International  
Management (3)
- MGMT 496 Current Issues in Human Resource  
Management (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cob/mgmt/ugrad/major/mgmt.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cob/mgmt/ugrad/major/mgmt.html).

### General Business Minor

(For non-business majors)

ISIS minor code: MG02

- Required:** ..... 12 hours
- MKTG 360 Principles of Marketing ..... 3
  - MGMT 386 Organizational Behavior and Theory or MGMT 384  
Human Resource Management ..... 3
  - ACC 240 Principles of Accounting I ..... 3
  - LAW 293 Legal Environment of Business ..... 3

**Electives:** ..... 9 hours  
Any three courses offered by the COB that were not taken as a required course.

*Note:* Students who plan to pursue the M.B.A. degree at EMU are recommended to enroll in ACC 241 Principles of Accounting II, FIN 350 Principles of Finance (3), #IS 215 End-User Computing (satisfies general education requirement I.5) (3), or POM 374 Introduction to Production/Operations Management (3) (if prerequisite DS 265 or ECON 310 is met) to fulfill foundation courses for the MBA program.

**Total:** ..... 21 hours

*#Advising note:* This course satisfies both general education requirements and requirements of the minor. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

### Management Minor

(For non-business majors)

ISIS minor code: MG01

- MGMT 202 Business Communication ..... 3
- MGMT 386 Organizational Behavior and Theory ..... 3

Choose five courses from the following, three of which must be MGMT courses: ..... 15

- ACC 130 Accounting for Non-business Majors (3)
- ACC 240 Principles of Accounting I (3)
- ACC 241 Principles of Accounting II (3)
- COB 200 Introduction to Business (3)
- #IS 215 End-User Computing (satisfies general education requirement I.5) (3)
- MKTG 261 Contemporary Selling (3)
- MKTG 360 Principles of Marketing (3)
- POM 374 Introduction to Production/Operations Management (3)
- POM 390 Management Systems (3)
- any MGMT course not listed as a required course (3)

**Total:** ..... 21 hours

*#Advising note:* This course satisfies both general education requirements and requirements of the minor. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

## College of Business Courses

**COB 179 Special Topics** 3 hrs  
Team-taught current topics related to career preparation for business and industry.  
*Prereq:* Department permission.

**COB 200 Introduction to Business** 3 hrs  
This course is designed to provide students with an understanding of the business professions, knowledge of business disciplines, and to begin assessment and development of skills important for effectiveness in business as an individual and a member of a work team. At the end of this course, students will have developed an understanding of how the different business disciplines operate and are interrelated. Students will have developed a career objective and have had an opportunity to learn, practice and develop interpersonal communication, and group and personal effectiveness skills. Both students who have decided on a major within the College of Business and those who are undecided about their major are welcome in this course.

### Management Courses

**MGMT 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq:* Department permission.

**MGMT 202 Business Communication** 3 hrs  
Study of principles, elements, and practices underlying administrative communication. The thinking and creative processes involved in problem-solving. The psychology, planning, and transmittal of business information.  
*Prereq:* CTAS 121 or CTAS 124 and ENGL 121.

**MGMT 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq:* Department permission.

**MGMT 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq:* Department permission.

**MGMT 381/382 Cooperative Education in Management** 1/2 hrs  
*Prereq:* MGMT 202 and junior standing.

**MGMT 384 Human Resource Management** 3 hrs  
Industrial relations functions in business organization. Recruitment, selection, placement, training, motivation, and appraisal of personnel; the scientific approach to the solution of practical problems of industrial manpower utilization.

**MGMT 386 Organizational Behavior and Theory** 3 hrs  
The study of behavioral problems in administration. Individual, group, intergroup, and organizational behavior under dynamic environment conditions.

**MGMT 387 Cooperative Education in Management** 3 hrs  
Four months of full-time employment at a business or public organization in a management position chosen for imparting practical experience in management. Use on a management major or minor not permitted. Graded credit/no credit. Admittance by application only.  
*Prereq:* Completion of three hours in management.

**MGMT 388 Introduction to Entrepreneurship** 3 hrs  
This course emphasizes the role of entrepreneurs in making integrated managerial and growth decisions for an enterprise from the initial start-up through various evolutionary stages of growth.

**MGMT 402 Business Report Writing** 3 hrs  
Study of principles and practices of business report writing required of men and women in business, industry, education and government. Con-

cepts, their illustrations, and applications. The creative and functional aspects in understanding the problem, gathering and organizing data, and presenting reports for management, employees and the public.

*Prereq: MGMT 202.*

**MGMT 403 Managerial Communication: Theory and Application** 3 hrs

A theoretical framework of key managerial communication concepts; skills used to diagnose communication problems and to communicate corporate policies.

*Prereq: MGMT 202, MGMT 386 or department permission.*

**MGMT 450 Leadership Theories and Practice** 3 hrs

Leadership theories and practice will provide students with knowledge of the theories of leadership as well as practice in leadership and management. Several diagnostic techniques will be used to help students understand their own leadership strengths and areas to be developed.

**MGMT 460 Management Skills** 3 hrs

This course will provide students with extensive practice in critical management skills such as group facilitation, project management, supervising employees and individual career management. Multiple participative techniques will be used such as case study, exercises, group projects and student presentations.

*Prereq: MGMT 384 and MGMT 386.*

**MGMT 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: MGMT 386 or department permission.*

**MGMT 480 Management Responsibility and Ethics** 3 hrs

Social, legal, and moral pressures of external and community groups on business operations; management's role of responsibility and leadership in interacting with these forces, and reducing and resolving conflicts with them.

*Prereq: Senior standing or department permission.*

**MGMT 481 Small Business Management** 3 hrs

A study of the major concepts and fundamental principles involved in the management of a small business enterprise. The role of the small firm in the national economy; the managerial considerations and problems confronting the entrepreneur in establishing such a venture.

*Prereq: Completion of all business junior-level core courses.*

**MGMT 482 Compensation Administration** 3 hrs

Basic concepts of design and methodology for wage and salary administration in an organization. Fundamental considerations in evaluating jobs and positions. Compensation methods and wage incentive systems.

*Prereq: MGMT 384 and MGMT 386 or department permission.*

**MGMT 483 Staffing Organizations** 3 hrs

The staffing of organizations; skills needed in human resource planning, recruitment, job analysis, selection techniques and evaluation.

*Prereq: MGMT 384.*

**MGMT 484 Management-Union Relations** 3 hrs

Management strategy and techniques for conducting effective management-union relationships and negotiations; contract administration for both industrial and non industrial organizations.

*Prereq: MGMT 384 and MGMT 386 or department permission.*

**MGMT 485 Human Resource Development** 3 hrs

Determination of training needs; development of training objectives; selection and development of resources for appropriate training experiences; implementation of training program evaluation.

*Prereq: MGMT 384 or department permission.*

**MGMT 486 Organizational Change and Team Building** 3 hrs

A practical approach to creating the organizational changes necessary for effective team-based, continual-improvement work systems. Students learn how to manage change effectively, providing a foundation for learning how to build teams and work effectively within teams. The course provides knowledge and critical skills needed for initiating and managing change and for building effective teams.

*Prereq: MGMT 386 or department permission.*

**MGMT 487 Cooperative Education in Management** 3 hrs

Four months of full-time employment at a business or public organization in a management position chosen for imparting practical experience in management. Use on a management major or minor not permitted. Credit/no credit. Admittance by application only.

*Prereq: MGMT 387. Department permission.*

**MGMT 488 Small Business Management Field Study** 3 hrs

Detailed study of an actual small business, analyzing the operation and making recommendations. A comprehensive written report is required, with one copy going to the owner of the business. Credit/no credit.

*Prereq: Department permission.*

**MGMT 489 Management Internship** 3 hrs

Approved on-the-job experience of students in the management internship program supplemented by seminars as appropriate. Open only to students formally enrolled in the program and taken during their terms of supervised work experience. May be repeated for a maximum of six credit hours, but may be counted for free elective credits only. Graded credit/no credit.

*Prereq: Department permission.*

**MGMT 490 Business Policy** 3 hrs

Integration and analytical application of fundamental areas of business-to-case problems. Policy issues in the identification and resolution of problem situations.

*Prereq: Senior standing in business administration or department permission (senior standing implies completion of the College of Business core): FIN350, MKTG 360, MGMT 386, POM 374)*

**MGMT 492 Managing World Business Communication** 3 hrs

This course focuses on such issues as global management in a cultural context, breaking down international business barriers, motivation in a global context, management of culture shock, international conflict management, management and cultural synergy, and business communication practice and traditions in specific national settings.

*Prereq: MGMT 202 or department permission.*

**MGMT 495 International Management** 3 hrs

Comparisons of management concepts, processes, and practices in various countries with their differing educational, sociological, legal-political, and cultural constraints. The evolution of management, and the transfer of managerial philosophy and practices to other countries.

*Prereq: MGMT 386 and senior standing or department permission.*

**MGMT 496 Current Issues in Human Resource Management** 3 hrs

A practical application of personnel management techniques to current business issues; specially designed workshop-type sessions for prospective managers, supervisors and personnel specialists.

*Prereq: MGMT 384 and 3 hours of HRM courses.*

**MGMT 497/498/499 Independent Study** 1/2/3 hrs

Directed study of a problem in management not otherwise treated in department courses.

*Prereq: Senior standing and department permission.*



# Marketing

Web site: [www.emich.edu/public/marketing/mktg.html](http://www.emich.edu/public/marketing/mktg.html)

**H. Robert Dodge**  
 Department Head  
 469 Gary M. Owen Building  
 734.487.3323  
 E-mail: [robert.dodge@emich.edu](mailto:robert.dodge@emich.edu)

**Professors:** Joseph L. Braden, H. Robert Dodge, Sammy D. Fullerton, Hugh B. McSurely, G. Russell Merz, Colin F. Neuhaus, Roger A. Peterson, Matthew H. Sauber, Gary M. Victor  
**Associate Professors:** Albert W. Belskus, Judy Davis, Sandra J. Defebaugh, Elizabeth A. Edwards, Tammy McCullough, Harash Sachdev  
**Assistant Professors:** Daryl L. Barton, Patricia Weber, Joel S. Welber

The marketing curriculum prepares students for careers in sales, advertising, product management, marketing management, marketing research, retailing, international business and logistics.

## Programs of Study

### Major:

Marketing

### Minor:

- Marketing with concentrations in:
- Advertising and sales promotion
  - Distribution
  - International business
  - Marketing management
  - Purchasing and materials management
  - Sales and sales management

Advising is provided by the faculty and is available during scheduled office hours, or by appointment.

**Advising Coordinator:** H. Robert Dodge

Graduate study leads to the Master of Business Administration (M.B.A.) degree. The M.B.A. degree program and courses are described in the graduate catalog.

## Marketing Major

**ISIS major code:** MK02

The marketing major offers career concentrations in advertising and sales promotion, international business, marketing research, purchasing and materials management, retailing and sales, and sales management. Students are encouraged to complete one of the specified concentrations, or they may elect any nine-hour combination of marketing electives.

To be completed are the general requirements for the Bachelor of Business Administration degree, the academic major requirements below, and sufficient electives to meet the minimum of 124 credit hours for graduation.

<b>Academic Major:</b> .....	<b>60</b>
<b>Business Core:</b> .....	<b>21</b>
ACC 240 Principles of Accounting I .....	3
ACC 241 Principles of Accounting II .....	3
COB 200 Introduction to Business .....	3
LAW 293 Legal Environment of Business .....	3
MGMT 202 Business Communication .....	3
#IS 215 End-User Computing (satisfies general education requirement I.5) .....	3
DS 265 Business Statistics I .....	3

**Business Administration Core:** ..... **15**

(All 200-level core courses listed above must be completed prior to admission to the College of Business.)

FIN 350 Principles of Finance .....	3
MKTG 360 Principles of Marketing .....	3
MGMT 386 Organizational Behavior and Theory .....	3
POM 374 Introduction to Production/Operations Management .....	3
MGMT 490 Business Policy .....	3

(All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.)

**Specialization:** ..... **24**

MKTG 261 Contemporary Selling .....	3
MKTG 365 Consumer Behavior .....	3
MKTG 368 Marketing Strategy .....	3
MKTG 470 Marketing Research .....	3
MKTG 475 Marketing Planning and Management .....	3
Choose one of the following suggested concentrations or any nine-hour combination of marketing electives: .....	9

**The advertising and sales promotion concentration** prepares students for positions leading to careers as account executives, sales promotion managers and advertising managers.

- MKTG 369 Advertising (3)
- MKTG 474 Promotional Strategy (3)
- Any additional marketing elective (3)

**The international business concentration** prepares students for a variety of positions in organizations conducting business in foreign environments. Course work includes international trade, foreign exchange, comparative advantage and marketing opportunity assessment. Course work in a foreign language is suggested.

- MKTG 375 International Business Transactions (3)
- MKTG 460 International Marketing (3)
- Any additional marketing elective (3)

**The purchasing and materials management concentration** prepares students for careers as purchasing managers, directors of purchasing, distribution managers, traffic managers and directors of materials management. Areas of study include assessing business markets, vendor analysis, economics of purchasing and materials planning systems.

- MKTG 364 Logistics and Materials Management (3)
- MKTG 374 Business to Business Marketing (3)
- MKTG 464 Supplier Chain Management (3)

**The distribution concentration** prepares students for careers as retail buyers, merchandising managers and store managers. Course work covers subjects such as retailing as an institution, site selection, product assortment, merchandising, retail advertising and inventory control.

- MKTG 363 Retailing (3)
- MKTG 369 Advertising (3)
- MGMT 384 Human Resource Management (3)

**The sales and sales management concentration** prepares students for such careers as salesman, district sales manager and national sales manager.

- MKTG 374 Business to Business Marketing (3)
- MKTG 461 Sales Management (3)
- Any additional marketing elective (3)

The marketing management concentration prepares students for positions in marketing administration such as product or brand management, customer satisfaction and market manager.

Any three marketing electives (9)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cob/mrkt/ugrad/major/mrkt.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cob/mrkt/ugrad/major/mrkt.html).

## Marketing Minor

(For non-business majors)

ISIS minor code: MK01

Students who are not majors in the College of Business may elect to minor in marketing.

### Required: 6 hours

MKTG 261 Contemporary Selling .....	3
MKTG 360 Principles of Marketing .....	3

### Electives: 15 hours (one MKTG course must be taken)

ACC 240 Principles of Accounting I (3)	
MGMT 202 Business Communication (3)	
MGMT 386 Organizational Behavior and Theory (3)	
MKTG 363 Retailing (3)	
MKTG 364 Logistics and Materials Management (3)	
MKTG 365 Consumer Behavior (3)	
MKTG 368 Marketing Strategy (3)	
MKTG 369 Advertising (3)	
MKTG 374 Business to Business Marketing (3)	
MKTG 375 International Business Transactions (3)	
MKTG 460 International Marketing (3)	
MKTG 461 Sales Management (3)	
MKTG 464 Supplier Chain Management (3)	
MKTG 470 Marketing Research (3)	
MKTG 473 Marketing and Product Innovation (3 hrs)	
MKTG 474 Promotional Strategy (3)	
MKTG 475 Marketing Planning and Management (3)	

College of Business approval is required for students planning to enroll in 300/400 level business courses. All Students must meet the specific course prerequisites for enrollment in any College of Business course.

**Total: ..... 21 hours**

## Law Courses

<b>LAW 293 Legal Environment of Business</b>	<b>3 hrs</b>
The judicial system and legal procedure, crimes and torts, contractual arrangements, sales of goods, and other transactions under the Uniform Commercial Code.	
<b>LAW 295 Legal Research</b>	<b>3 hrs</b>
The performance of research on several actual legal problems. <i>Prereq: LAW 293.</i>	
<b>LAW 393 Law of Business Enterprises</b>	<b>3 hrs</b>
The law of forms of business enterprise and negotiable instruments. Agency, partnerships, corporations and negotiable instruments. <i>Prereq: LAW 293 or department permission.</i>	
<b>LAW 403 Employment Law</b>	<b>3 hrs</b>
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.	

## LAW 477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: LAW 293. Department permission.*

## LAW 499 Independent Study 3 hrs

Directed study of a problem in business law not otherwise treated in department courses.

*Prereq: Senior standing and department permission.*

## Marketing Courses

### MKTG 177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Departmental permission.*

### MKTG 261 Contemporary Selling 3 hrs

The basic principles of personal selling applicable to any product and/or service; professional attitudes and performance.

### MKTG 277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Departmental permission.*

### MKTG 285/286/287 Cooperative Education in Marketing 1/2/3 hrs

Employment at a business or public organization in a marketing position. General elective credit only. Credit/no credit.

*Prereq: Department permission.*

### MKTG 360 Principles of Marketing 3 hrs

Marketplace exchanges; the relationship between marketing activities of the organization and the consumer.

### MKTG 363 Retailing 3 hrs

The practices of retail store management. Store location, layout, organization, buying systems, sales promotion activities, customer services and store operating expenses.

*Prereq: MKTG 360.*

### MKTG 364 Logistics and Materials Management 3 hrs

Concepts and systems designed to facilitate and control the movement of materials and parts through the procurement, production and distribution processes until they reach the final user. Transportation, inventory control, materials handling, warehousing, customer service, order processing, planning and control.

*Prereq: MKTG 360.*

### MKTG 365 Consumer Behavior 3 hrs

The study of the basic factors influencing consumer behavior, including the rules of affect, cognition, behavior and the environment. Models designed to explain consumer behavior will be explored, as well as implication for public policy and the development of marketing strategies.

*Prereq: MKTG 360 and PSY 101.*

### MKTG 368 Marketing Strategy 3 hrs

Advanced policies and practices in marketing. Case analysis of marketing problems pertinent to product, price, promotion, and channels of distribution policies.

*Prereq: MKTG 360 and ACC 240.*

### MKTG 369 Advertising 3 hrs

Advertising as a communications tool in marketing management. The role of advertising in the marketing mix; advertising and the process of communication; influence of buyer behavior on the character of promo-

tional efforts; planning creative strategies; effective execution of promotional programs; measuring the results of promotional efforts.

*Prereq: MKTG 360.*

**MKTG 374 Business to Business Marketing 3 hrs**

Concepts, procedures, and problems encountered when one business markets its products or services to another company. Emphasizes the marketing practices employed by industrial organizations. Topics include: market analysis, organizational buying behavior, purchasing procedures, pricing and negotiation, selling and marketing planning.

*Prereq: MKTG 360.*

**MKTG 375 International Business Transactions 3 hrs**

How goods and services are moved internationally. Transportation concepts and systems, the shipping scene, various documents needed to expedite the international movement of goods.

*Prereq: MKTG 360.*

**MKTG 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Departmental permission.*

**MKTG 385/386/387 Cooperative Education in Marketing 1/2/3 hrs**

Employment at a business or public organization in a marketing position. General elective credit only. Credit/no credit.

*Prereq: Three hours of marketing. Department permission.*

**MKTG 460 International Marketing 3 hrs**

International marketing and its role in the multinational corporation. Appraising international market opportunities; product, price, promotion and distribution policies; foreign marketing environments.

*Prereq: MKTG 360.*

**MKTG 461 Sales Management 3 hrs**

Planning, organizing, directing and controlling the sales force. Recruiting, selecting, training, evaluating, compensating and supervising.

*Prereq: MKTG 261 and MKTG 360.*

**MKTG 464 Supplier Chain Management 3 hrs**

Management of the supply and purchasing functions. Determining the right price, quality assurance, selection of suppliers, negotiation, supplier consultation and training, and the legal and environmental aspects of purchasing and supply.

*Prereq: MKTG 360.*

**MKTG 470 Marketing Research 3 hrs**

Skills and attitudes required to specify and utilize market and buyer information in defining marketing problems and making marketing decisions. Applied marketing research problems.

*Prereq: MKTG 360 and DS 265.*

**MKTG 473 Marketing and Product Innovation 3 hrs**

Marketing and product successes and failures, environmental influences, market/product plans, and the new product planning process. Development of a project, starting with product-idea and continuing through offering a new product/service.

*Prereq: MKTG 360.*

**MKTG 474 Promotional Strategy 3 hrs**

Problems of advertising and promotion, including appropriate use of research in advertising decision making. Development of advertising campaigns, determining advertising effectiveness, client-agency relationships and societal impact of advertising.

*Prereq: MKTG 369.*

**MKTG 475 Marketing Planning and Management 3 hrs**

Integration of concepts from previous marketing courses and planning the marketing program.

*Prereq: MKTG 368 and marketing major with senior standing or department permission.*

**MKTG 477/478/479 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**MKTG 485/486/487 Cooperative Education in Marketing 1/2/3 hrs**

Employment at a business or public organization in a marketing position. General elective credit only. Credit/no credit.

*Prereq: MKTG 387. Department permission.*

**MKTG 489 Internship Program 3 hrs**

Approved marketing projects with business or nonprofit organizations.

*Prereq: Marketing major and department permission.*

**MKTG 497/498/499 Independent Study 1/2/3 hrs**

Directed study of a specific problem area under the direction of a faculty member.

*Prereq: Senior standing and department permission.*

# **College of Education**

**Jerry H. Robbins  
Dean**

**Michael Bretting  
Associate Dean**

**Carolyn Finch  
Associate Dean**

**310 Porter  
734.487.1414**

**Office of Academic Services  
206 Porter  
734.487.1416**

## **DEPARTMENTS**

**Health, Physical Education, Recreation and Dance  
Leadership and Counseling  
Special Education  
Teacher Education**



## College of Education

Web site: [www.emich.edu/public/coe/coepage.html](http://www.emich.edu/public/coe/coepage.html)

For almost 150 years, EMU has played a major state and national role in the preparation of teachers, other school personnel, and certain related professionals. For example, we were among the first institutions in the country to prepare physical education teachers and special education teachers.

Now we are, and have been for some years, the nation's largest producer of professional education personnel. We offer programs at the bachelor's, master's, specialist, and doctoral degree levels.

Our programs have received a number of national recognitions. We are fully accredited by the National Council for the Accreditation of Teacher Education and approved by the Michigan Department of Education. In almost every instance where a program-specific national recognition exists, we hold this recognition at the highest level.

In addition to our academic programming, the College of Education houses the National Institute for Consumer Education and, through the Office of Collaborative Education, we work with numerous school districts in a variety of school improvement activities.

Our teacher graduates are highly prized and are actively recruited by many out-of-state school districts. Our alums hold many distinctions, including the Pulitzer Prize, National Teacher of the Year, and president or executive of major national professional organizations.

For our initial teacher preparation programs, "EMU teacher educators produce knowledgeable professionals who are caring, reflective, decision-makers in a culturally diverse and technological society."

Further, EMU advanced professional education programs develop leaders who demonstrate reflective thought and scholarship within the context of a culturally diverse society.

### 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 fields: biology, business education (business services and technology education), chemistry, computer science, earth science, economics, English, French, general science, geography, German, history, industrial-vocational education, marketing education, mathematics, physics, political science, psychology, social studies, sociology, Spanish, and speech (communication). 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: art education, industrial technology, Japanese language and culture, music (instrumental), music (vocal), physical education, and technology and design. 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 emotionally impaired (elementary and secondary), hearing impaired (elementary and secondary), mentally impaired (elementary and secondary), physically and otherwise health impaired (elementary and secondary), and visually impaired (elementary and secondary). The speech and language impaired program is a five-year course of study that culminates in a master's degree. The learning disabilities program is a graduate-level program only. See the curricula for these special education programs.

#### Endorsements

One may become eligible to become endorsed in a second (or third or fourth) teaching field. In addition to the teaching fields given above, course work leading to eligibility for recommendation for a certification endorsement is available in such fields as bilingual Spanish, health, and vocational business education.

#### Employment Opportunities

The demand for certain kinds of teachers is much greater, both in Michigan and nationally, than it is for other kinds of teachers. In addition, it is sometimes difficult to place student teachers in certain teaching fields. Accordingly, prospective teachers are urged to consult with an adviser at an early point so as to optimize ultimate employment opportunities through careful selection of a course of study.

### Admission to and Retention in the Teacher Education 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 education program. Admission requirements are common for all teacher education programs, except that certain special education programs have additional requirements.

Application for admission to the teacher education program should occur immediately after the semester in which the student has earned 56 credit hours of credit. Transfer students with more than 56 credit hours should apply immediately after the semester in which they have earned 12 credit hours at EMU.

Admission to the teacher education 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 in the College of Education Office of Academic Services, 206 Porter.

#### Criteria

Criteria for admission to and continuance in the teacher education program are:

1. Completion of 56 credit hours with a minimum EMU overall grade point average of at least 2.5 in the major (secondary and where applicable, elementary) or three minors (elementary).
  - a. Graduate (post-baccalaureate) students whose undergraduate GPA is 2.5 or above must either:
    - i. apply as a post-baccalaureate student through the Office of Admissions if all College of Education requirements are met, or
    - ii. enter as a self-improvement student through the Office of Admissions and fulfill all College of Education requirements, then apply for admission to the College of Education as a post-baccalaureate student through the Office of Admissions.
  - b. Graduate (post-baccalaureate) students whose undergraduate GPA is below 2.5 must either:

- i. apply to the second bachelor's program and satisfy the GPA requirement by completing 24 credit hours of approved undergraduate work in Michigan-approved substantive fields at EMU and earn a GPA of 2.5 or better. At least one half of the credits must be in the student's major or minor(s) which he/she expects to teach. Students must submit the list of courses for approval to the College of Education Office of Academic Services during the first semester of course work. Students may not enroll in courses for which admission to the teacher education program is a prerequisite before the 24 hours are completed. The second bachelor's degree must be posted before the student is approved for student teaching.
  - ii. complete a master's degree in a Michigan substantive field he/she expects to teach. Students may not enroll in courses for which admission to the teacher education program is a prerequisite before the master's degree is completed.
2. Demonstrated competence in:
    - a. speaking effectiveness as determined by successful completion of the required course(s) in speech;
    - b. reading ability as determined by EMU admission policies, successful completion of general education requirements; and successful completion of the state-mandated basic skills test.
    - c. written expression as determined by successful completion of all general education requirements, a review of an autobiography submitted as a part of the teacher education program admission process; and successful completion of the state-mandated basic skills test.
    - d. mathematical computation as determined by EMU admissions policies, completion of general education requirements in science and mathematics with a C or better, and successful completion of the state-mandated basic skills test.
  3. Satisfactory health status, including tuberculosis and speech and hearing screenings.
  4. Social and emotional adjustment: account is taken of standards of conduct expected on Eastern's campus; the degree to which students meet their academic, financial, moral, social, and other obligations; and the practice of good citizenship among fellow students.
  5. Freedom from any kind of probation—administrative or academic. While on academic probation, students may not register for, remain in, or receive credit for a professional education course. This includes all methods classes taught in departments outside of the College of Education.

Undergraduate students on academic probation may not earn credit for any graduate level on-campus or off-campus courses (500 level and above).

## Elementary and Early Childhood Programs

The curricula for the elementary education programs (including early childhood with the selection of the appropriate minor) consist of (1) an appropriately selected group of courses in general education, (2) an appropriately chosen major and minor (or three minors), and (3) a required group of professional education courses. If three minors are selected, the three minors must include at least one of (a) Elementary Science Group, (b) Social Studies Group (Elementary), (c) Language Arts Group, or (d) Mathematics for the Elementary Teaching Certificate. 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 Elementary Certificate.

Ordinarily, the degree earned is the Bachelor of Science. The Bachelor of Arts degree requires completion of 75 hours in the liberal arts and one year of college credit in foreign language. In any event, the student must complete a minimum of 124-128 appropriate credit hours to satisfy graduation requirements.

The State Elementary Provisional Certificate is valid for teaching all subjects kindergarten through grade 5, for teaching in self-contained classrooms in grades 6-8, and for teaching in one's major or minor areas of concentration in grades 6-8. The certification test for elementary education is #83, "Elementary Education."

## Curricula for Secondary (Middle-High School) and K-12 Teachers

The curricula for the secondary/K-12 teacher education programs consist of (1) an appropriately selected group of courses in general education, including the EMU General Education program, (2) an appropriately chosen major and (certain teaching fields excepted) minor, (3) and 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. The student must complete a minimum of 124-128 appropriate credit hours to satisfy graduation requirements.

Ordinarily, the degree earned is the Bachelor of Science; however, the Bachelor of Arts degree may be obtained by completion of 75 hours in the liberal arts and one year of college credit in foreign language.

## Special Education Programs

### Admission

Admission requirements to the University, the teacher education 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 letter of recommendation from a faculty member in the department of Special Education and following acceptance into the teacher education program. Program area faculty will determine admission.

## Admission and Continuance Criteria (For All Programs Except Speech and Language Impaired)

1. Completion of 56 credit hours of college credit and with an EMU grade point average of 2.50 or better.
2. Completion of SPGN 251 Education of Exceptional Children and the introductory course in the major area of study with a grade of "C" or better. These introductory courses are:
  - a. Emotionally impaired: SPEI 301 Emotionally Impaired Children and Adolescents.
  - b. Hearing impaired: (see statement under Hearing Impaired).
  - c. Mentally impaired: SPMI 350 Introduction to Mental Retardation.
  - d. Physically and otherwise health impaired: SPPI 310 Developmental Sciences for Teachers of the Physically and Health Impaired.
  - e. Visually impaired: 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 letter of recommendation from a faculty member in the Department of Special Education.

Criteria for continuance in a program of study in the department of Special Education is dependent upon:

1. Maintenance of a 2.50 cumulative grade point average.
2. Maintenance of a 2.50 cumulative grade point average in major courses in program of study.
3. Completion of all courses in the major with a grade of "C" or better. Students will be required to retake any major course in which they earn a grade below "C." A major course may be repeated only once.
4. Demonstration of performance that indicates reasonable aptitude, maturity, stability, skill, and understanding necessary for success in the professional field of special education.

The continuance or termination decision will be made by the faculty in the program area. Students may request a meeting with the faculty of a program area to apprise them of any extenuating circumstances that may aid them in arriving at a fair and equitable decision. The faculty decision will be final and will be transmitted to the student in writing by the department head.

Nothing in this department's procedures will negate University or College of Education action for students on academic, administrative, or social probation.

## 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 35-45 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.
3. Must pass a speech and hearing screening.
4. Must meet application submission deadlines:
  - o Fall semester: February 15
  - o Winter semester: October 15

When the number of applicants exceeds program capacity, a specific formula will be applied to make selections. Preference will be given on the basis of GPA, previous enrollment at EMU, membership in a protected minority group.

To be allowed to continue in the speech-language pathology program, the student must meet the following:

1. Maintenance of a cumulative overall GPA of 2.75 or better.
2. Maintenance of a cumulative major GPA of 3.0 or better.
3. Completion of all major academic courses with a grade of "C" or better. Courses in which a grade of "C-" or lower is achieved must be repeated and may be repeated only once. A student must retake the course in which the lowest grade was received. No more than one course may be repeated. Students will not be able to enroll in courses at the management level or beyond until this requirement is met. Students must remain in their planned tracks if they are required to repeat. This implies ineligibility to take advanced SPSI courses for one or two terms.
4. Completion of all major clinical courses with a grade of "C+" or better. Clinical courses in which a grade of "C" or lower is achieved must be repeated before the student is allowed to continue with the next level of courses and may be repeated only once.
5. Demonstration of behaviors which indicate reasonable stability, maturity, understanding and aptitude as judged necessary for predicted success as a speech-language pathologist. Such qualitative judgements will be made by the SLP faculty.

6. Students on academic probation will not be allowed to enroll in major courses until the probation is lifted and their overall GPA is 2.75.

### 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 the full faculty for discussion of academic performance and continuation in the program.

### General Information

Fieldwork in both general and special education is required. Prestudent teaching experiences are required of all candidates pursuing a teaching certificate. (See Prestudent Teaching) Majors in special education are required to complete practicums 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.

### Certification—Special Education

Certification in either elementary or secondary (regular) education is required for all programs of study in special education except speech and language impaired (see SLI program description). Successful completion of any program of study leads to a K-12 special education endorsement except in the area of speech and language impaired.

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 other applicants 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 International Council for Exceptional Children.

The hearing impaired and speech and language impaired programs also are certified by national professional associations. 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 of Clinical Competence in Speech Pathology. Specific requirements may be obtained from the advisers in speech and language impairment.

National certification is provided by the Council on Education of the Deaf to eligible majors in the hearing impaired program. Specific requirements may be obtained from advisers in this area.

## Prestudent Teaching Field Experiences

**Barbara Gorenflo**  
Interim Director

The prestudent teaching field experience requires prospective teachers to work with children or youth in an actual classroom setting. It is designed to help prospective teachers evaluate their own abilities as teachers and to affirm their decision about choosing teaching as a career. It also enables 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.

The prestudent teaching field experience requires prospective teachers to visit diverse environments and work with children or youth in actual classroom settings. It is designed to help prospective teachers evaluate their own abilities as teachers and to affirm their decision about choosing teaching as a career. It also enables 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 prestudent teaching field experiences is required of all candidates for a recommendation for a teaching certificate. See the program descriptions for the exact requirement in each program. At least 50 percent of the experience must be in a classroom situation with the age group and (in the case of secondary/K-12) in the subject matter area the student plans to teach. Students should make sure that their prestudent teaching field experiences include opportunities to work with students from different socio-economic levels and cultures.

By the end of the prestudent 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 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 prestudent 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 prestudent teaching coursepack. Students in programs that do not require three FETE courses must complete the appropriate sections of the general prestudent teaching course pack. Majors in Special Education should consult their advisors or the prestudent teaching director concerning overlapping preclinical requirements.

## Student Teaching

**Barbara Gorenflo**  
Interim Director

### Applicability

All candidates for recommendation for certification as a teacher are required to fulfill a student teaching requirement in the area of their academic preparation and at the level for which certification is being sought.

Students desiring certification in the elementary, secondary, and K-12 programs are required to complete successfully twelve credit hours of student teaching.

Students in special education areas (emotionally impaired, hearing impaired, mentally impaired, physically or otherwise health impaired, visually impaired) are required to fulfill six credit hours of student teaching with nonimpaired children and an additional ten credit hours of student teaching in their area of specialization.

Students desiring certification in bilingual education are required to fulfill 8 credit hours of student teaching with English-speaking chil-

dren and an additional 4 credit hours of student teaching in bilingual education.

### Application Deadlines

Applications for student teaching may be obtained from the College of Education Office of Academic Services, 206 Porter, and should be completed and returned to that office in accordance with the following schedule:

- Fall student teaching: ..... previous January 15  
 Summer student teaching: ..... previous January 15  
*(By special permission only)*  
 Winter student teaching: ..... previous June 15  
 Spring student teaching: ..... previous January 15  
*(By special permission only)*

Applications for student teaching will be accepted after the deadline; however, placement priority is given to those students who file in accordance with the deadline dates and it is rarely possible to provide placements for those who apply late.

### Eligibility for Student Teaching

To qualify for a student teaching placement, students must satisfy the following criteria:

1. Fulfill the requirements of the prestudent teaching field experience.
2. Demonstrate minimum levels of skills in reading, written English, and mathematics as defined and measured by the state-mandated basic skills test.
3. Demonstrate competence in the teaching field(s) through a satisfactory score on state-mandated subject area test(s), if required by the state.
4. Provide written recommendations from course instructors and field supervisors demonstrating a minimum level of skill in working with students. These become a part of the student teacher's file.
5. Have a positive recommendation from the designated representative of the department in which the major is located.
6. Register in the appropriate student teaching course (see course descriptions).
7. Be a first semester senior with the majority of major courses completed.
8. Carry a class load of no more than 15 hours. To be considered for more than 15 credit hours, the student must have a 3.0 cumulative GPA.
9. 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.

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 Multicultural Society
4. Secondary and K-12: the appropriate special methods course in the major or minor field.
5. Elementary: RDNG 314 Teaching Reading in the Elementary School and MATH 381 The Teaching of Mathematics, K-6
6. All state-mandated tests.

No student shall be assigned to student teaching whose grade point average is less than 2.50 in work completed at Eastern Michigan University or less than 2.50 in the teaching major (including courses completed at other colleges if applicable). No student shall be assigned to student teaching who has received a grade lower than "C" 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 2.50 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 can not be guaranteed for those who do not qualify at the time of application.

Students cannot arrange their own student teaching assignments. Prior arrangements will not be honored by the College of Education Office of Academic Services. Placement could be delayed a full semester in these cases.

A preferred student teaching placement will be accommodated by the College of Education Office of Academic Services if possible.

In requesting placement in a particular school district, the student is advised to avoid the following: districts in which a parent or other relative is employed by the district board of education; districts in which the student has a record of significant prior involvement; and districts that are outside of the list of the student teaching agreements.

The director of student teaching must approve all placements outside the list of Eastern Michigan University cooperating districts. A request for a guest student teaching must be approved by the Office of Records and Teacher Certification and the director of student teaching and must be at an NCATE (National Council for Accreditation of Teacher Education) accredited institution. Guest status at another university requires a 3.0 Eastern Michigan GPA.

Students enrolled at another institution in Michigan or in another state, who wish to do their student teaching through Eastern Michigan University, are advised to consult the director of student teaching on their campus prior to submitting the request to this University. Students granted guest student status for student teaching are expected to have fulfilled all prerequisites required for student teaching at the home institution.

Spring student teaching is available only under very specialized circumstances involving special education teachers.

When students are doing student teaching, they should arrange their daily schedule so that teaching will take precedence over other interests and duties.

Students requesting placements beyond a 40-mile radius from Eastern Michigan may be assessed a mileage fee.

### Courses

All student teaching courses (EDUC 490 through EDUC 499) 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 the learning activities of pupils. Student teachers are given increasing tasks for directing the activities of the classroom, gradually assuming full responsibility.

All student teaching courses have as prerequisites the following requirements, with additional prerequisites given, as applicable, with each course:

*Elementary*—Completion of EDPS 322 or EDPS 325, RDNG 314, CURR 304, SOFD 328, and MATH 381 (or appropriate substitutions).

*Secondary*—Completion of EDPS 322, CURR 305, SOFD 328, and completion of the special methods course in the major or minor (or appropriate substitutions).

## Approved Majors for the Elementary Program

Elementary Science Group  
Language Arts Group  
Mathematics for the Elementary Teaching Certificate  
Social Studies Group Major for Elementary Education

## Approved Minors for the Elementary Program and the Special Education-Elementary Programs

### Art

Arts Group minor (not available with Art minor, Music minor, or with Technology minor)  
Bilingual-Bicultural Education Spanish-English  
Communication Minor for Elementary and Special Education Students  
Drama/Theatre for the Young  
Early Childhood Education  
Elementary Music Education  
Elementary Science Group  
English and American Language and Literature  
French Language  
German Language  
Health  
Language Arts Group  
Mathematics for the Elementary Teaching Certificate  
Physical Education for Special Education  
Social Studies Group (Elementary)  
Spanish Language  
Structure of the Disciplines  
Technology and Design

## Teaching Minor Methods Courses for Special Education/Elementary Programs

Art: FA 317 (2) and FA 416 (2)  
Astronomy: PHY 325 (3)  
Bilingual-Bicultural Education Spanish-English: FLAN 422 (3)  
Biology: BIOL 403 (3)  
Chemistry: PHY 325 (3)  
Communication Minor for Elementary and Special Education Students: CTAC 307 (3)  
Computer Science: COSC 346 (3)  
Earth Science: GESC 347 (3)  
Economics: HIST 481 (3)  
English Language and Literature: ENGL 308 (3)  
French Language: FLAN 411 (3)  
German Language: FLAN 411 (3)  
Geography: HIST 481 (3)  
Geology: GESC 347 (3)  
Group Minor in Social Studies: HIST 481 (3)  
Health: PHED 367 (3)  
History: HIST 481 (3)  
Mathematics: MATH 304 or MATH 306 (3)  
Physical Education: PHED 367 (3)  
Physical Education for Special Education Majors (available only to special education majors): PHED 367 (3)  
Physics: PHY 325 (3)  
Political Science: HIST 481 (3)  
Psychology: HIST 481 (3)  
Sociology: HIST 481 (3)  
Spanish Language: FLAN 411 (3)

## Approved Majors for Secondary (Middle-High School) and K-12 Teachers

### Secondary Programs

Biology  
Business Services and Technology Education (business education)  
Chemistry  
Communication (speech)  
Computer Science

Earth Science  
 Economics  
 English and American Literature and Language (English)  
 French  
 General Science  
 Geography  
 German  
 History  
 Industrial-Vocational Education  
 Marketing Education  
 Mathematics  
 Physics  
 Political Science  
 Psychology  
 Social Studies  
 Sociology  
 Spanish

#### K-12 Programs

Art Education  
 Japanese Language and Culture  
 Music (Instrumental)  
 Music (Vocal)  
 Physical Education  
 Technology and Design

### Approved Minors for Secondary, K-12, and Special Education-Secondary Programs

Art  
 Bilingual-Bicultural Education Spanish-English  
 Biology  
 Chemistry  
 Comprehensive Minor in Communication and Theatre Arts (speech)  
 Computer Science  
 Earth Science  
 Economics  
 English and American Language and Literature (English)  
 French Language  
 General Science (available only to majors in one of the sciences)  
 Geography  
 Geology  
 German Language  
 Health  
 History  
 Mathematics  
 Physical Education  
 Physical Education for Special Education Majors (available only to special education majors)  
 Physics  
 Political Science  
 Psychology  
 Sociology  
 Spanish Language

### Teaching Minor Methods Courses for Special Education/Secondary Programs

Art: FA 317 (2) and FA 416 (2)  
 Astronomy: PHY 325 (3)  
 Bilingual-Bicultural Education Spanish-English: FLAN 422 (3)  
 Biology: BIOL 403 (3)  
 Chemistry: PHY 325 (3)  
 Communication Minor for Elementary and Special Education Students:  
 CTAC 307 (3)

Computer Science: COSC 346 (3)  
 Earth Science: GESG 347 (3)  
 Economics: HIST 481 (3)  
 English Language and Literature: ENGL 308 (3)  
 French Language: FLAN 411 (3)  
 German Language: FLAN 411 (3)  
 Geography: HIST 481 (3)  
 Geology: GESG 347 (3)  
 Group Minor in Social Studies: HIST 481 (3)  
 Health: PHED 367 (3)  
 History: HIST 481 (3)  
 Mathematics: MATH 304 or MATH 306 (3)  
 Physical Education: PHED 367 (3)  
 Physical Education for Special Education Majors (available only to special education majors): PHED 367 (3)  
 Physics: PHY 325 (3)  
 Political Science: HIST 481 (3)  
 Psychology: HIST 481 (3)  
 Sociology: HIST 481 (3)  
 Spanish Language: FLAN 411 (3)

### Student Teaching Courses

<b>EDUC 490 Student Teaching</b>	<b>8 hrs</b>
<b>EDUC 491 Student Teaching</b>	<b>10 hrs</b>
<b>EDUC 492 Student Teaching</b>	<b>12 hrs</b>
<b>EDUC 493 Student Teaching</b>	<b>2 hrs</b>
For experienced, certified teachers. <i>Prereq: Permission from College of Education Office of Academic Services.</i>	
<b>EDUC 494 Student Teaching</b>	<b>3 hrs</b>
For experienced, certified teachers. <i>Prereq: Permission from College of Education Office of Academic Services.</i>	
<b>EDUC 495 Student Teaching</b>	<b>4 hrs</b>
<i>Prereq: Permission from College of Education Office of Academic Services.</i>	
<b>EDUC 496 Student Teaching</b>	<b>6 hrs</b>
<i>Prereq: Permission from College of Education Office of Academic Services.</i>	
<b>EDUC 497 Student Teaching</b>	<b>6 hrs</b>
<i>Prereq: Credit toward certification in either EDUC 496 or EDUC 499.</i>	
<b>EDUC 498 Student Teaching</b>	<b>5 hrs</b>
<i>Prereq: Credit toward certification in either EDUC 496 or EDUC 499.</i>	
<b>EDUC 499 Student Teaching</b>	<b>6 hrs</b>
<i>Prereq: Permission from College of Education of Academic Services.</i>	

# Health, Physical Education, Recreation and Dance

Web site: [www.emich.edu/public/hperd/hperd.html](http://www.emich.edu/public/hperd/hperd.html)

**Jeff Goodwin**

**Interim Department Head**

237 Warner

734.487.0090

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**Professors:** Gary Banks, Marvin Johnson, Joann McNamara, Steve Moyer, Michael Paciorek, Erik Pedersen, John Sheard, Roger Williams, Winifred Witten

**Associate Professors:** Jennifer Beller, Michael M. Bretting, Douglas Briggs, Kathy Conley-Mullens, Jeff Goodwin, Robert Parks, Jerry Ricciardo

**Assistant Professors:** Lisa Angermeier, Jeff Armstrong, Eddie Bedford, Phillip Bogle, Charles Chatterton, Victor Chiasson, Geff Colon, Kara Gallagher, Suzanne Geldys-Zelnick, Sherry Jerome, Sheldon Levine, Gloria Neve, Julianne Pedersen-O'Brien, David Thomas, Ronald Venis, Kay Woodiel, Timothy Ziegenfuss

**Instructors:** Sharon Pendleton, Jodi Schumacher

Any student who has started his/her academic career after the Fall 1997 semester shall take the PEGN 210 Lifetime Wellness and Fitness course (see page 31 for exceptions). Any student who has started his/her academic career prior to the Fall 1997 semester has the option of taking two physical education activity courses or the PEGN 210 Lifetime Wellness and Fitness course (see page 31 for exceptions). In addition, students may elect up to eight 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 make application in room 235 of the Warner Physical Education building. Upon acceptance into a program, declared major students are assigned a faculty adviser.

In addition, the department provides career education in the fields of dance, health, physical education, adapted physical education, recreation/park management, therapeutic recreation, and sports medicine.

Three physical education facilities are available to accommodate accelerating student use. Warner Physical Education Building, dedicated in 1964, houses the majority of areas used by the department to instruct students in their career preparation. The facility includes three gymnasiums, a dance studio, a combatives room, a gymnastics room, sports medicine lab and six classrooms.

Adjacent and attached to Warner are Bowen Field House and the Olds Student Recreation Center, where classes are taught in facilities such as the indoor track, racquetball/paddleball courts, and 50-meter swimming pool. Also available for class use are nine tennis courts on campus and water sports facilities nearby.

The department is affiliated with the American Alliance and Michigan Associations of Health, Physical Education, Recreation, and Dance; the National and Michigan Recreation and Park Associations; 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, the Physical Education Organization, and the Student Recreation Organization.

## Degree

Bachelor of Science

## Programs of Study

### Majors:

Dance

Physical education for K-12 education

Recreation and park management

Sports medicine-athletic training

Sports medicine-exercise science

Therapeutic recreation

### Minors:

Athletic coaching

Dance

Health education

Health education for elementary, secondary, K-12, special education-elementary, and special education-secondary

Physical education for secondary, K-12, and special education-secondary

Physical education for special education-elementary and special education-secondary

Recreation and park management

The list of officially assigned advisees is posted in Room 235 of Warner Physical Education Building.

It is recommended that students seek out their adviser as soon as possible to establish a course of study leading to the degree sought.

### Advising Coordinators:

Faculty in each of the professional programs are assigned advising responsibilities for those who declare their majors in one of the four disciplines. Coordinators are:

#### Majors:

Dance: Joann McNamara

Teachers of physical education: Michael Paciorek

Recreation and park management: Vic Chiasson

Therapeutic recreation: David Thomas

Sports medicine-athletic training: Jodi Schumacher

Sports medicine-exercise science: Jeff Armstrong

#### Minors:

Coaching: Michael Paciorek

Dance: Joann McNamara

Health: Kay Woodiel

Physical education: Michael Paciorek

Physical education minor for special education: Michael Paciorek

Recreation and park management: Vic Chiasson

### Approvals:

State of Michigan Approval as a Physical Education Teacher for Students with Disabilities: Michael Paciorek

Fieldwork is a criteria 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. For descriptions of graduate courses and programs, consult the graduate catalog.

### Activity Courses for General Students

Students are required to wear apparel appropriate to safe and efficient participation in the particular course activity. Students are also required to pay a locker and towel fee. This fee is payable at the Cashier's Office, 201 Pierce Hall.

## Dance Curriculum

### ISIS major code: PE02

The dance curriculum is uniquely designed, offering students of dance a choice of three career-track options. This curriculum leads to a bachelor of science degree. The three tracks are: (1) pre-dance therapy, (2) studio management, and (3) performance. Students are not required to choose a minor, with the exception of (2) 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. A technical assessment and audition into the program
2. An application into the dance program at 108 Warner
3. An application at 235 Warner Physical Education Building
4. A course of study planned with a dance adviser based on track recommendations.

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 the dance faculty adviser. Some of the track required courses can be used to fulfill general education requirements.

Dance majors are strongly urged to enroll in a technique class every semester while attending Eastern Michigan University. Ballet or modern technique classes may be repeated for no-credit.

<b>Dance Core:</b> .....	<b>37</b>
DANC 107 Rhythmic Analysis and Dance Accompaniment .....	3
DANC 208 Classical Ballet Technique III .....	3
DANC 209 Classical Ballet Technique IV .....	3
DANC 210 Modern Dance Technique III .....	3
DANC 211 Modern Dance Technique IV .....	3
DANC 245 Elements of Dance Composition .....	4
DANC 255 Dance Production .....	3
DANC 350 History of Dance .....	3
DANC 354 Methods and Materials in Teaching of Dance ...	3
DANC 450 Advanced Dance Composition .....	4
DANC 455 Seminar in Dance .....	2
PEMJ 320 Dance Work shop .....	1
PEMJ 422 Dance Work shop .....	1
PEMJ 423 Dance Work shop .....	1

**Choose one track**

<i>Track one: pre-dance therapy</i> .....	<b>39</b>
EDPS 325 Life Span Human Growth and Development .....	4
PHED 200 Anatomy and Physiology .....	5
PHED 204 Kinesiology (Biomechanics of Physical Activity) .....	3
PHED 209 Bio-Fitness .....	3
PSY 309 Social Psychology .....	3
PSY 360 Abnormal Psychology .....	3
PSY 361 Psychotherapy .....	3
RECR 250 Fieldwork in Recreation/Therapeutic Recreation .....	1
DANC 231 Service Teaching .....	1
<i>Choose one:</i>	
PSY 321 Child Psychology (3)	
PSY 322 Psychology of Adolescence (3)	
PSY 323 Psychology of Human Aging (3)	
<i>Choose one:</i>	
PSY 362 The Psychology of Stress and Relaxation (3)	
PSY 365 Behavior Modification (3)	
<i>Choose seven hours from:</i>	
PHED 334 Adapted Physical Education (3)	
RECR 200 Recreation for Persons with Disabilities (3)	
MUSC 103 Introduction to Music Therapy (2)	
CTAR 326 Developmental Drama/Theatre with the Handicapped (2)	
Others in consultation with adviser	
<i>Track two: studio management</i> .....	<b>16</b>
DANC 331 Service Teaching .....	1
DANC 333 Service Teaching .....	1

DANC 456 Creative Dance for Children .....	2
PEGN 102 Aerobic Dance .....	1
PEGN 103 Couple, Square, and Ballroom Dancing .....	1
PEGN 159 Tap Dancing .....	1
PEGN 277 Special Topics: Intermediate Aerobics .....	1
PHED 204 Kinesiology (Biomechanics of Physical Activity) .....	3
PHED 200 Anatomy and Physiology .....	5

<i>Track three: Performance</i> .....	<b>22</b>
CTAO 102 Voice Development .....	1
#CTAR 158 Fundamentals of Acting (satisfies general education requirement IV.4) .....	3
CTAR 254 Stage Makeup .....	1
CTAR 457 Audition .....	2
CTAR 461 Musical Theatre Acting .....	2
MUSC 232 Voice Class .....	1
PHED 204 Kinesiology (Biomechanics of Physical Activity) .....	3
PEGN 155 Jazz I .....	1
PEGN 159 Tap Dancing .....	1
PEGN 255 Jazz II .....	1
PEMJ 320 Dance Work shop .....	1
PEMJ 322 Dance Work shop .....	1
PHED 200 Anatomy and Physiology .....	5

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coe/hperd/ugrad/major/danc.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coe/hperd/ugrad/major/danc.html).

**Total:** ..... **53-76 hours**

*#Advising note:* This course satisfies both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

**Recreation and Park Management**

**ISIS major code: PE04**

The recreation and park management curriculum leads to a bachelor of science degree and is designed to prepare students for a broad range of professional career options including municipal and regional recreation, state and federal park agencies, college intramurals and student unions, commercial and private recreation, outdoor adventure programs, industrial recreation, armed forces recreation, and resorts. The program is a nonteaching major. A minor in recreation and park management is offered to majors in other fields.

The curriculum is multidisciplinary, including course work in management and the social sciences, with required core course work to include recreation leadership, programming, and administration and management courses. Students are advised in selecting electives from recreation/park and related subject areas that will further prepare them for careers in their chosen area of interest.

This curriculum consists of a minimum of 52-54 credit hours of general education, a minimum of 59 credit hours of courses in the recreation and park management major, 8-13 credit hours of electives, 250 hours of volunteer and/or paid recreation experience, and a minimum GPA requirement before taking a full-time 15-week practicum. The practicum and fieldwork cannot be completed at the same site. The student must also file for candidate status one semester prior to enrolling in the practicum. No outside minor is required, but it is strongly recommended.

Students planning admission to the recreation and park management major must officially enroll in the program at the Academic Advising Center and complete an application at 235 Warner Physical Education Building.



Criteria for candidate status in recreation and park management are:

1. Obtain a minimum of 2.5 GPA overall and 2.75 GPA in all major courses.
2. Complete an application for candidate status in recreation and park management.
3. Complete 250 hours of verified volunteer or paid work experience in one or more leisure service agencies (this requirement stands alone and does not include required hours included in other courses such as RECR 200, RECR 250/251/252/253).
4. Complete 30 hours of volunteer or work experience in recreation with persons with disabilities.
5. Complete all recreation and park management core courses.
6. Complete all recreation and park management required courses.
7. Complete 90 percent of all academic courses.
8. Submit two letters of recommendation from recreation professionals under whom the applicant has completed work or volunteer experience to the assigned academic adviser in recreation.

**Recreation core courses:** ..... 33

- RECR 100 Introduction to Recreation and Leisure ..... 3
- RECR 200 Recreation for Persons with Disabilities ..... 3
- RECR 250/251/252/253 Fieldwork in Recreation/Therapeutic Recreation ..... 1
- RECR 260 Recreation Leadership ..... 3
- RECR 290 Practical Research in Recreation ..... 3
- RECR 379 Special Topics: Legal Aspects of Recreation ..... 3
- RECR 360 Recreation Program Planning ..... 3
- RECR 370 Leisure Facility Design and Management ..... 3
- RECR 410 Professional Preparation ..... 1
- RECR 460 Park and Recreation Administration ..... 3
- EDPS 325 Life Span Human Growth and Development ..... 4
- #ENGL 326 Research Writing (satisfies general education requirement I.3) ..... 3

**Recreation and park management courses (required)** ..... 26

- RECR 271 Park Maintenance ..... 3
- RECR 361 Special Events in Recreation ..... 3
- RECR 450 Park Planning and Design ..... 3
- RECR 465 Park and Recreation Management ..... 3
- RECR 471 Contemporary Issues in Recreation ..... 3
- RECR 489 Recreation Practicum ..... 8
- Select 8-13 credit hours of electives from the courses provided below or other courses after consultation with the assigned recreation and park academic adviser.
- RECR 251/252/253 Fieldwork in Recreation/Therapeutic Recreation (1 each)
- RECR 280 Camping (F) (2)
- RECR 310 Leisure and the Older Adult (3)
- RECR 320 Leisure Education (3)
- RECR 477/478/479 Special Topics (1-3)
- TEDU 152 Arts and Crafts (3)
- GEOG 112 Introduction to Travel and Tourism (3)
- GEOG 113 Foundations of Guest Service (3)
- GEOG 212 Geography of Travel and Tourism (3)
- GEOG 344 Recreation Geography (3)
- GESC 114 National Parks and Monuments (2)
- BIOL 207 Elements of Ecology (2)
- BIOL 224 Principles of Conservation (4)
- BIOL 232 Nature Interpretation (3)
- #PHIL 220 Ethics (satisfies general education requirement IV.3) (3)
- MATH 360 Statistical Methods (3)
- PLSC 330 Urban Politics (3)
- #SOCL 214/#ANTH 214 Racial and Cultural Minorities (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)

- SOCL 402 Group Dynamics (3)
- MKTG 360 Principles of Marketing (3)
- MGMT 386 Organizational Behavior and Theory (3)
- PHED 353 American Red Cross Lifeguarding (3)
- PHED 453 American Red Cross Water Safety and Lifeguard Instructor (3)
- HLED 210 Standard American Red Cross First Aid (2)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/hperd/ugrad/major/rec.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/hperd/ugrad/major/rec.html).

**Total:** ..... 59 hours

*#Advising note:* 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.

## Curriculum for Sports Medicine

**ISIS major code: PE08**

Sports medicine is a comparatively new field of study that integrates sports, medicine, the sciences, and other health-related areas into a professional curriculum. It is identified under different approaches and titles including: athletic medicine, cardiovascular rehabilitation, exercise physiology and biomechanics. Essentially, the study of sports medicine provides an understanding of the health and physical implications of human movement.

The curriculum leads to a bachelor of science degree in sports medicine. The course of study consists of a minimum of 53 credit hours in general education, a minimum of 54-59 credit hours in the major and 17-20 hours of free electives. Students must participate in a variety of practicum experiences prior to completing a full-time internship in the senior year. The program has established special course prerequisites, GPA requirements, and candidacy admission requirements. No outside minor is needed.

## Sports Medicine—Athletic Training

**ISIS major code: PE0801**

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 and complete an application at 235 Warner Physical Education Building.
2. Overall grade point average at Eastern Michigan University of 2.9 (transfer grade point average evaluated separately).
3. Completion of 60 hours of the program.
4. Grades of “C” or above in each of the following: BIOL 105 Introductory Biology for Non-majors, CHEM 120 Fundamentals of Organic and Biochemistry, PHY 221 Mechanics, Sound, and Heat, #PSY 101 General Psychology (satisfies general education requirement II.2 or II.3), ZOOL 318 Laboratory in Human Anatomy.
5. A grade of “B” or above in SPMD 200 Anatomy and Physiology, SPMD 290 Practicum II, and SPMD 295 Recognition and Evaluation of Athletic Injury.
6. Three letters of recommendation, two professional and one personal.
7. Biographical sketch.

When an “intent” has successfully achieved the above, he or she must apply for candidacy. The admission form can be obtained from the program director. The “intent” will be notified of the date and time for a personal interview with the sports medicine committee.

**Sports medicine—Athletic training**

DTC 204 Sports Nutrition .....	3
HLED 310 Advanced First Aid and Emergency Care .....	3
HLED 390 Drug Use and Abuse .....	3
*PHED 300 Physiology of Exercise .....	4
SPMD 119 Orientation to Sports Medicine .....	1
SPMD 200 Anatomy and Physiology .....	5
SPMD 219 Introduction to Athletic Training .....	3
*SPMD 221 Therapeutic Modalities for Athletic Trainers ...	2
SPMD 225 Practicum I .....	2
SPMD 290 Practicum II .....	2
SPMD 295 Recognition and Evaluation of Athletic Injury .....	4
*SPMD 305 Kinesiology-Tissue Mechanics .....	2
*SPMD 315 Applied Sport Psychology .....	3
*SPMD 322 Therapeutic Exercise for Athletic Trainers .....	3
*SPMD 390 Preinternship .....	2
*ATHL 419 Medical and Administrative Aspects of Athletic Training .....	2
*SPMD 421 Legal Aspects of Sports Medicine .....	3
SPMD 490 Internship Athletic Training .....	8
ZOOL 318 Laboratory in Human Anatomy .....	2
*Physical education activity courses .....	4

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coe/hperd/ugrad/major/smat.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coe/hperd/ugrad/major/smat.html).

**Total:** ..... 61 hours

*\*These courses are reserved for candidate students*

**Sports Medicine—Exercise Science**

**ISIS major code: PE0802**

Students entering the exercise science program are listed as “intents” and cannot be considered for candidacy until the following criteria are met:

1. Declare major intent with the Academic Advising Center and the department.
2. Overall grade point average at Eastern Michigan University of 2.75 (transfer grade point average evaluated separately).
3. Completion of 60 hours of the program. (The following courses must be included in the 60 hours: SPMD 119, PHED 209, SPMD 200, ZOOL 318, and PHED 204 or SPMD 305.)
4. Grades of “C” or above in each of the following: BIOL 105 Introductory Biology for Non-majors, CHEM 120 Fundamentals of Organic and Biochemistry, PHY 221 Mechanics, Sound, and Heat, SPMD 200 Anatomy and Physiology, ZOOL 318 Laboratory in Human Anatomy.
5. Three letters of recommendation, two professional and one personal.
6. Biographical sketch.

When an “intent” has successfully achieved the above, he or she must apply for candidacy with the program chair for a personal interview with the Sports Medicine Committee. Once accepted into candidacy, the student must maintain a 2.75 GPA. Failure to maintain the required GPA will result in dismissal from the program.

**Sports medicine—Exercise science**

DTC 202 Principles of Human Nutrition .....	3
HLED 310 Advanced First Aid and Emergency Care .....	3
NURS 270 Pharmacology .....	2
<i>One of:</i> .....	3
PHED 204 Kinesiology (Biomechanics of Physical Activity) (3)	
SPMD 305 Kinesiology-Tissue Mechanics (3)	

PHED 209 Bio-Fitness .....	2
PHED 300 Physiology of Exercise .....	4
SPMD 119 Orientation to Sports Medicine .....	1
SPMD 200 Anatomy and Physiology .....	5
*SPMD 315 Applied Sport Psychology .....	3
*SPMD 410 Laboratory Techniques in Human Performance Analysis .....	4
*SPMD 425 Sports Medicine PracticumExercise Science ...	2
*SPMD 430 Basic Principles of Electrocardiography .....	3
*SPMD 421 Legal Aspects of Sports Medicine .....	3
*SPMD 431 Pathology for Sports Medicine .....	3
*SPMD 432 Introduction to Exercise Programming .....	3
*SPMD 480 InternshipExercise Science .....	8
ZOOL 318 Laboratory in Human Anatomy .....	2
Physical education activity courses (swimming, jogging, conditioning activities, aerobic dance, cycling, weight training) .....	2

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coe/hperd/ugrad/major/smes.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coe/hperd/ugrad/major/smes.html).

**Total:** ..... 56 hours

*\*These courses are reserved for candidate students*

**Therapeutic Recreation Curriculum**

**ISIS major code: PE06**

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 52-54 credit hours of general education, a minimum of general education, a minimum of 64 credit hours of courses in the therapeutic recreation major, 8-10 credit hours of electives, and 250 hours of volunteer and/or paid recreation experience before taking a full-time 15 week, 600 hour practicum. The practicum and fieldwork cannot be completed at the same site. The student must also file for candidate status one semester prior to enrolling in the practicum. No outside minor is required, but it is strongly recommended.

Students planning admission to the therapeutic recreation major must officially enroll in the program at the Academic Advising Center and complete an application at 235 Warner Physical Education Building.

Criteria for therapeutic recreation provisional status are:

1. Application for program admission
2. Autobiographical sketch and your interest in working with special populations in the field of therapeutic recreation
3. Statement of current goals

Criteria for candidate status in therapeutic recreation are:

1. Obtain a minimum of 2.50 GPA overall and 2.75 GPA in all major courses.
2. Complete an application for candidate status in therapeutic recreation.
3. Complete a minimum of 60 hours of verified volunteer and/or paid therapeutic recreation experience with special populations.
4. Complete 30 hours of volunteer work or experience in therapeutic recreation with persons who do not have disabilities.
5. Complete 250 hours of verified volunteer or paid work experience in one or more leisure service agencies (this requirement does not include items three and four listed above).
6. Complete all therapeutic recreation core courses.
7. Complete all therapeutic recreation required courses.
8. Complete 90 percent of all academic courses.

9. Submit two letters of recommendation from recreation professionals under whom the applicant has completed work or volunteer experience to the assigned academic adviser in recreation.

**Therapeutic Recreation major**

*Recreation core courses:* ..... 33

- RECR 100 Introduction to Recreation and Leisure ..... 3
- RECR 200 Recreation for Persons with Disabilities ..... 3
- RECR 250/251/252/253 Fieldwork in Recreation/Therapeutic Recreation ..... 1
- RECR 260 Recreation Leadership ..... 3
- RECR 290 Practical Research in Recreation ..... 3
- RECR 379 Special Topics: Legal Aspects of Recreation ..... 3
- RECR 360 Recreation Program Planning ..... 3
- RECR 370 Leisure Facility Design and Management ..... 3
- RECR 410 Professional Preparation ..... 1
- RECR 460 Park and Recreation Administration ..... 3
- EDPS 325 Life Span Human Growth and Development ..... 4
- #ENGL 326 Research Writing (satisfies general education requirement I.3) ..... 3

*Therapeutic recreation courses (required):* ..... 31

- RECR 180 Activity Analysis and Adaption ..... 3
- RECR 300 Principles of Therapeutic Recreation ..... 3
- RECR 340 Techniques in Therapeutic Recreation ..... 3
- RECR 400 Therapeutic Recreation Processes and Services ..... 3
- RECR 430 Issues in Therapeutic Recreation ..... 3
- RECR 449 Therapeutic Recreation Practicum ..... 8
- PHED 200 Anatomy and Physiology ..... 5
- PSY 360 Abnormal Psychology ..... 3
- Select 8-10 credit hours of electives from the courses provided below or other courses after consultation with the therapeutic recreation adviser.
- RECR 251/252/253 Fieldwork in Recreation/Therapeutic Recreation (1 each)
- RECR 210 Camping for Special Populations (2)
- RECR 310 Leisure and the Older Adult (3)
- RECR 320 Leisure Education (3)
- RECR 330 Therapeutic Recreation: Substance Abuse (3)
- RECR 481 Adapted Aquatics (2)
- PHED 389 Sport and Activity for the Disabled (1)
- RECR 477/478/479 Special Topics (1-3)
- TEDU 152 Arts and Crafts (3)
- SPGN 251 Education of Exceptional Children (2)
- CTAR 326 Developmental Drama/Theatre with the Handicapped (2)
- EDPS 318 Play and Creativity in ECE (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coe/hperd/ugrad/major/therrec.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coe/hperd/ugrad/major/therrec.html).

**Total:** ..... **64 hours**

*#Advising note:* This course satisfies both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

**Physical Education Major**

**K-12 Teacher Certification**

**ISIS major code: PE 31**

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 certification test covering this field is #44, "Physical Education" and is taken at the the completion of all program requirements.

Students planning admission to the physical education major must officially enroll in the program at the Academic Advising Center and complete an application at 235 Warner Physical Education Building.

Students seeking certification must meet requirements for entry into the teacher education program. The course of studies requires completion of general education requirements, a 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 kindergarten through grade 12. The Michigan Exemplary Physical Education Curriculum Project (Mi-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 University Honors Program. Students wishing to enroll in the Honors Program must maintain a GPA of 3.3 and fulfill all requirements in specific honor courses. See the department honors adviser for specific information.

**Teaching Major** ..... **30**

- HLED 210 Standard American Red Cross First Aid ..... 2
- PHED 200 Anatomy and Physiology ..... 5
- PHED 204 Kinesiology (Biomechanics of Physical Activity) ..... 3
- PHED 240 History and Foundation of Physical Education ..... 2
- PHED 281 Motor Development ..... 2
- PHED 300 Physiology of Exercise ..... 4
- PHED 334 Adapted Physical Education ..... 3
- PHED 382 Motor Learning ..... 3
- PHED 400 Philosophical Aspects of Physical Education and Sport ..... 2
- Electives selected in consultation with an academic adviser ..... 4

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coe/hperd/ugrad/major/pe\\_tk12.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coe/hperd/ugrad/major/pe_tk12.html).

**Coaching Minor**

**ISIS minor code: PE05**

This program is intended for students planning to pursue coaching as a full- or part-time activity. This is not a minor for prospective teachers. The coaching minor leads to PACE certification.

SPMD 315 Applied Sport Psychology .....	3
HLED 390 Drug Use and Abuse .....	3
PHED 200 Anatomy and Physiology .....	5
PHED 312 Athletic Training and Physiotherapy .....	2
PHED 421 Legal Aspects of Sport, Physical Education, and Recreation .....	3
Select a minimum of four hours from the following: .....	4
ATHL 263 Theory of Football (2)	
ATHL 265 Theory of Baseball (2)	
ATHL 267 Theory of Basketball (2)	
ATHL 268 Theory of Coaching Swimming (2)	
ATHL 269 Theory of Track and Field (2)	
Select a minimum of three hours from the following: .....	3
ATHL 261 Techniques of Officiating I (2)	
ATHL 262 Techniques of Officiating II (2)	
PHED 305 Practical Concepts of Conditioning (2)	
PHED 316 Foundations of Coaching (2)	
PHED 389 Sport and Activity for the Disabled (2)	
PHED 405 Women in Sports (2)	
PHED 477/478/479 Special Topics (see adviser) (1-3)	

**Total:** ..... 23 hours

### Dance Minor

**ISIS minor code: PE02**

Students planning admission to the dance minor must complete the following:

1. A technical assessment and audition into the program.
2. An application at 108 Warner Physical Education Building.
3. A course of study planned with a dance adviser.

DANC 107 Rhythmic Analysis and Dance Accompaniment .....	3
DANC 245 Elements of Dance Composition .....	3
DANC 255 Dance Production .....	3
DANC 350 History of Dance .....	3
DANC 450 Advanced Dance Composition .....	4
DANC 455 Seminar in Dance .....	2
Two levels of Modern Dance Technique I-IV .....	4-6
Two levels of Classical Ballet Technique I-IV .....	4-6
Two levels of Jazz I-II .....	2

**Total:** ..... 24 hours

### Health Minor

**ISIS minor code: PE04**

While designed to provide preparation for teaching health in schools, the health minor is not restricted to those preparing to work in health-related fields. It is an excellent background for graduate programs in the school-health and community-health disciplines.

HLED 210 Standard American Red Cross First Aid .....	2
HLED 302 From Host to Host: The Communicable Diseases .....	1
HLED 320 Health Education in the Elementary Grades .....	2
HLED 350 Scientific Foundations in Health .....	3
HLED 360 Concepts in School Sex Education .....	2
HLED 380 Psychosocial Concepts of Health .....	2
HLED 390 Drug Use and Abuse .....	3
HLED 399 Teaching about AIDS .....	4-6
Eight credits chosen in consultation with advising coordinator .....	8

**Total:** ..... 24 hours

### Recreation and Park Management Minor

**ISIS minor code: PE03**

**Required Courses:** ..... 16 hours

RECR 100 Introduction to Recreation and Leisure .....	2
RECR 200 Recreation for Persons with Disabilities .....	3
RECR 250/251/252/253 Fieldwork in Recreation/Therapeutic Recreation .....	1 each
RECR 260 Recreation Leadership .....	3
RECR 360 Recreation Program Planning .....	3
RECR 460 Park and Recreation Administration .....	3

**Restricted Electives:** ..... 5-6 hours

Choose five to six credit hours from any of the following:

RECR 271 Park Maintenance (3)	
RECR 280 Camping (2)	
RECR 210 Camping for Special Populations (2)	
RECR 290 Practical Research in Recreation (3)	
RECR 300 Principles of Therapeutic Recreation (3)	
RECR 379 Special Topics: Legal Issues in Recreation (3)	
RECR 361 Special Events in Recreation (3)	
RECR 370 Leisure Facility Design and Management (3)	
RECR 390 Outdoor Recreation (3)	
RECR 400 Therapeutic Recreation Processes and Ser- vices (3)	
RECR 430 Issues in Therapeutic Recreation (3)	
RECR 450 Park Planning and Design (3)	
RECR 465 Park and Recreation Management (3)	
RECR 477/478/479 Special Topics (1/2/3)	
PHED 389 Sport and Activity for the Disabled (1)	

**Total:** ..... 24 hours

### Health Minor

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

**ISIS minor code: PE34**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in health, certification code "M.A." The certification test covering this field is #43, "Health."

HLED 210 Standard American Red Cross First Aid .....	2
HLED 302 From Host to Host: The Communicable Diseases .....	1
HLED 320 Health Education in the Elementary Grades .....	2
HLED 350 Scientific Foundations in Health .....	3
HLED 360 Concepts in School Sex Education .....	2
HLED 380 Psychosocial Concepts of Health .....	2
HLED 390 Drug Use and Abuse .....	3
HLED 399 Teaching about AIDS .....	1
Eight credits chosen in consultation with advising coordinator .....	8

**Total:** ..... 24 hours

### Physical Education Minor

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

**ISIS minor code: PE31**

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." The certification test covering this field is #44, "Physical Education," and should be taken at the completion of the program.



PHED 200 Anatomy and Physiology .....	5
PHED 204 Kinesiology (Biomechanics of Physical Activity) .....	3
PHED 281 Motor Development .....	2
PHED 300 Physiology of Exercise .....	4
PHED 334 Adapted Physical Education .....	3
PHED 367 Methods and Materials in Physical Education .....	3
Select at least four credits from the following courses: .....	4
PHED 150 Methods of Teaching Individual Sports (3)	
PHED 151 Methods of Teaching Team Sports I (3)	
PHED 152 Methods of Teaching Team Sports II (1)	
PHED 153 Methods of Teaching Conditioning Activities (1)	

**Total:** ..... 24 hours

## Physical Education Minor for Special Education Majors

Special Education-Elementary and Special Education-Secondary Teacher Certification (available only to special education majors)

### ISIS minor code: PE36

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 Approval 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, July 1, 1987.

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." The certification test covering this field is #44, "Physical Education," and should be taken at the completion of the program.

*PHED 200 Anatomy and Physiology .....	5
PHED 281 Motor Development .....	2
PHED 300 Physiology of Exercise .....	4
PHED 334 Adapted Physical Education .....	3
PHED 388 Assessment in Adapted Physical Education .....	1
PHED 389 Sport and Activity for the Disabled .....	1
PHED 367 Methods and Materials in Physical Education .....	3
PHED 434 Adapted Preschool Physical Education .....	1
Select at least four hours from the following courses: .....	4
PHED 150 Methods of Teaching Individual Sports (3)	
PHED 151 Methods of Teaching Team Sports I (3)	
PHED 152 Methods of Teaching Team Sports II (1)	
PHED 153 Methods of Teaching Conditioning Activities (1)	
PHED 250 Methods of Teaching Aquatics (2)	
PHED 251 Methods of Teaching Gymnastics (2)	
PHED 350 Methods of Teaching Rhythmic Activities (1)	
PHED 351 Methods of Teaching Fundamental Movement and Movement Education (1)	
PHED 352 Methods of Teaching Elementary Physical Education (2)	
**PHED 490 Field Experience in Adapted Physical Education (4)	

**Total:** ..... 24 hours

\*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.

\*\*This course is required for those students seeking the State of Michigan Approval as a Physical Education Teachers for Students with Disabilities.

## Athletic Courses

**ATHL 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**ATHL 261 Techniques of Officiating I** 2 hrs  
An elective course offered to men and women students interested in pursuing officiating as an avocation or as an integral part of a coaching background. The course covers football and men's and women's basketball. Registration with the Michigan High School Athletic Association will be available.

**ATHL 262 Techniques of Officiating II** 2 hrs  
An elective course offered to men and women students who are interested in pursuing officiating as an avocation. The course would also be valuable to those students who are interested in coaching, as the coach-official relationship is a valuable tool in one's coaching background. The sports covered are: track and field, baseball and softball. There will be a practical phase as well as a lecture phase of instruction.

**ATHL 263 Theory of Football** 2 hrs  
Lecture course covering the basic fundamentals and styles of offensive and defensive football.

**ATHL 265 Theory of Baseball** 2 hrs  
The fundamental skills and strategy of baseball for the prospective teacher and coach.

**ATHL 267 Theory of Basketball** 2 hrs  
Lecture course covering the basic fundamentals and styles of offensive and defensive basketball.

**ATHL 268 Theory of Coaching Swimming** 2 hrs  
ATHL 268 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.

**ATHL 269 Theory of Track and Field** 2 hrs  
The fundamental techniques for coaching and administering programs of track and field for the prospective teacher and coach.

**ATHL 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**ATHL 317 Theory of Coaching Individual Sports for Women** 2 hrs  
Coordinates, correlates and supplements skills and information already conveyed in badminton, golf, tennis and archery activity classes. Place of individual sports in the school intramural and interschool programs, lesson plans, unit plans, techniques and strategies of advanced play, organization of a large class, evaluation of current literature pertinent to each activity.

**ATHL 318 Theory of Coaching and Teaching Women's Team Sports** 2 hrs  
Coordinates, correlates and supplements skills and coaching techniques introduced in activity courses. Field sports, volleyball and basketball.

**ATHL 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**ATHL 419 Medical and Administrative Aspects of Athletic Training 3 hrs**

To expose a candidate student to the various medical specialities that an athletic trainer is likely to utilize as medical support staff in the athletic health care setting. The organizational and administrative concepts that are necessary to the smooth delivery of an athletic health care system are also featured. The course is primarily lecture, but practical sessions are included, where appropriate.

*Prereq: SPMD 295, Candidacy.*

**ATHL 477/478/479 Spécial Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**Dance Courses****DANC 106 Introduction to the Performing Arts 3 hrs**

A survey of the arts of dance, theatre and music; developing an understanding and appreciation of representative works in the three fields. The place of these arts in contemporary society and their contribution to a richer life. Attendance required at specific on-campus performances.

**DANC 107 Rhythmic Analysis and Dance Accompaniment 3 hrs**

The study of rhythm, sound and music literature as related to the teaching and performing of dance. Assigned listening experiences and designated explorations of pertinent elements of music.

**DANC 108 Classical Ballet Technique I 2 hrs**

Theory and technique of beginning classical ballet.

*Prereq: Dance major/minor, DANC 107 or equivalent, and/or permission.*

**DANC 109 Classical Ballet Technique II 2 hrs**

A continuation of the theory and technique of beginning classical ballet.

*Prereq: Dance major/minor, DANC 108 or equivalent, and/or permission.*

**DANC 110 Modern Dance I 2 hrs**

The course is designed as an introduction to the technique of modern dance. The course will include beginning-level skills, modern dance terminology, and the history and combinations of variety of modern dance techniques.

**DANC 111 Modern Dance II 2 hrs**

A continuation of the theory and technique of DANC 110.

*Prereq: DANC 110.*

**DANC 177/178/179 Spécial Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**DANC 208 Classical Ballet Technique III 3 hrs**

Theory and technique of intermediate classical ballet.

*Prereq: Dance major/minor, DANC 109 or equivalent, and/or permission.*

**DANC 209 Classical Ballet Technique IV 3 hrs**

A continuation of the theory and technique of advanced and intermediate classical ballet.

*Prereq: Dance major/minor, DANC 208 or equivalent, and/or permission.*

**DANC 210 Modern Dance Technique III 3 hrs**

A continuation of DANC 111.

*Prereq: DANC 111.*

**DANC 211 Modern Dance Technique IV 3 hrs**

A continuation of DANC 210.

*Prereq: DANC 210.*

**DANC 231 Service Teaching 1 hr****DANC 233 Service Teaching 1 hr****DANC 245 Elements of Dance Composition 3 hrs**

An introduction to the fundamentals of choreography, including the use of improvisation and the development of compositions. Exploration and manipulation of the elements of dance.

*Prereq: DANC 110.*

**DANC 255 Dance Production 3 hrs**

A study of the fundamentals of dance production including publicity, planning and organization, set design and construction, stage lighting, sound effects, recording, costuming and stage makeup. Laboratory projects coordinated with dance productions.

**DANC 277/278/279 Spécial Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**DANC 331 Service Teaching 1 hr****DANC 333 Service Teaching 1 hr****DANC 350 History of Dance 3 hrs**

A lecture and reference course covering the history, philosophy and theory of dance from primitive man to modern man, including the social and educational implications of dance today.

**DANC 354 Methods and Materials in Teaching of Dance 3 hrs**

A study of the methods and the use of materials in the teaching of dance idioms K-12. Modes and models that facilitate learning, lesson planning and vertical progression. Experiences in teaching and field observations.

**DANC 377/378/379 Spécial Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**DANC 450 Advanced Dance Composition 4 hrs**

An extension of the principles explored in DANC 245 with emphasis on structural development and experiences in the use of thematic materials, selected dance idioms, multimedia resources and group choreography. A choreographic work will be required of students.

*Prereq: DANC 107 and DANC 211.*

**DANC 455 Seminar in Dance 2 hrs**

Current literature and dance research, trends in dance education and developments in contemporary concert dance. Lecture-discussion.

*Prereq: DANC 350, DANC 450, or department permission.*

**DANC 456 Creative Dance for Children 2 hrs**

Goals, concepts, materials and experiences to teach children's creative dance.

**DANC 477/478/479 Spécial Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**DANC 497/498/499 Directed Study 1/2/3 hrs**

An opportunity for directed study in areas not provided in other course offerings, or greater depth of study in areas in which the student has a continuing interest. Students will be assigned to select faculty members for direction, consultation and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a grade point average of 3.0 or above, and who have completed the appropriate background courses.

*Prereq: Department permission.*

## Health Courses

**HLED 120 Healthful Living** 3 hrs  
Develops in students the responsibility for guiding and evaluating their own health. Acquisition of attitudes, habits, skills, and ideas favorable to efficient and healthful living. Material and information concerning mental, physical, and social well-being. Group discussion, lectures, instructional aids.

**HLED 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**HLED 210 Standard American Red Cross First Aid** 2 hrs  
For all students interested in accident prevention and in the development of the knowledge and skills essential for the immediate care of the suddenly ill or injured. Readings, lectures, and practical work. Certificates for Standard First Aid and for Cardiopulmonary Resuscitation are awarded upon successful completion of the requirements for each.

**HLED 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**HLED 302 From Host to Host: The Communicable Diseases** 1 hr  
Various types of communicable diseases—childhood and young adulthood, skin, upper respiratory, gastrointestinal, and sexually transmitted—their causes, modes of transmission, signs and symptoms, treatment, complications and means of control. Lectures, discussions, readings and audio-visual materials.

**HLED 310 Advanced First Aid and Emergency Care** 3 hrs  
Designed for the sports medicine major. At the completion of this course, the student should have developed the functional first aid capabilities required of police officers, firefighters, emergency squad members, ambulance attendants, and others who, as part of their daily routines, may be required to provide the initial emergency care necessary to sustain life and to maintain life support until the victims of accidents or sudden illness are cared for by qualified medical personnel.  
*Prereq: HLED 210 or current Red Cross certification in First Aid.*

**HLED 320 Health Education in the Elementary Grades** 2 hrs  
For students preparing to teach primary and intermediate grades. Health observation of school children, survey of environmental conditions and other methods of determining the health needs of the child. The application of educational principles in health instruction. Evaluation of the newer courses in health education.  
*Prereq: Sophomore standing.*

**HLED 350 Scientific Foundations in Health** 3 hrs  
Basic instruction in the physiological and anatomical concepts related to the health of the human organism.

**HLED 360 Concepts in School Sex Education** 2 hrs  
The concepts of sex education as they apply to the school setting. A study of the biological, sociological, and psychological foundations of sex education and the methods and materials for use in presenting sex education in schools.

**HLED 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**HLED 380 Psychosocial Concepts of Health** 2 hrs  
Mental and social factors as they affect the health of the human being. An exploration of all health concepts and correlation of the mental and social phenomena with the physiological principles presented in HLED 350.

**HLED 390 Drug Use and Abuse** 3 hrs  
Alcohol and other drug use and abuse. Historical perspectives of current problems, pharmacology of drugs commonly used and abused, physiological and psychosocial factors related to abuse, drug problems of special populations, alcohol and other drug abuse prevention, treatment and rehabilitation, drugs and the law.

**HLED 399 Teaching about AIDS** 1 hr  
A course for prospective teachers, nurses, or others who want to examine the issues pertaining to teaching about AIDS prevention. Includes curriculum, methods and resources.  
*Prereq: One course in AIDS or department permission.*

**HLED 402 Selecting Health Products and Services** 3 hrs  
The development of skills in making wise selections of health products and services. Characteristics of the health consumer, consumer protection agencies and laws, quackery, evaluation of health products and services.  
*Prereq: Sophomore standing.*

**HLED 420 Health and Aging** 3 hrs  
A study of some of the major physiological aspects of aging. A review of the basic systemic anatomy and physiology necessary to understand the major aspects of biological aging and the chronic diseases associated with aging. For the general student.  
*Prereq: Sophomore standing.*

**HLED 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

### Activity Courses for General Students

<b>PEGN 101 Weight Control and Fitness</b>	<b>2 hrs</b>
<b>PEGN 102 Aerobic Dance</b>	<b>1 hr</b>
<b>PEGN 103 Couple, Square, and Ballroom Dancing</b>	<b>1 hr</b>
<b>PEGN 108 Basketball</b>	<b>1 hr</b>
<b>PEGN 110 Beginning Tae Kwon Do</b>	<b>1 hr</b>
<b>PEGN 111 Volleyball</b>	<b>1 hr</b>
<b>PEGN 119 Women's Gymnastics</b>	<b>1 hr</b>
<b>PEGN 122 Men's Gymnastics I</b>	<b>1 hr</b>
<b>PEGN 126 Conditioning Activities</b>	<b>1 hr</b>
<b>PEGN 130 Assault and Rape Prevention</b>	<b>1 hr</b>
<b>PEGN 140 Marching Band</b>	<b>1 hr</b>
<b>PEGN 142 Racquetball and Paddleball</b>	<b>1 hr</b>
<b>PEGN 143 Fencing</b>	<b>1 hr</b>
<b>PEGN 144 Trap and Skeet Shooting</b>	<b>1 hr</b>
<b>PEGN 145 Cross Country Skiing</b>	<b>1 hr</b>
<b>PEGN 146 Beginning Snow Skiing</b>	<b>1 hr</b>
<b>PEGN 148 Tennis</b>	<b>1 hr</b>
<b>PEGN 149 Badminton</b>	<b>1 hr</b>
<b>PEGN 150 Golf</b>	<b>1 hr</b>
<b>PEGN 151 Bowling</b>	<b>1 hr</b>
<b>PEGN 152 Sailing</b>	<b>1 hr</b>

PEGN 153 Swimming	1 hr
PEGN 155 Jazz I	1 hr
PEGN 159 Tap Dancing	1 hr
PEGN 160 Ballet	1 hr
PEGN 161 Modern Dance	1 hr
PEGN 177/178/179 Special Topics	1/2/3 hrs
PEGN 210 Lifetime Wellness and Fitness	2 hrs
A lecture course covering the essential elements of wellness and fitness. The course is geared toward entering freshmen and is a graduation requirement.	
PEGN 211 Volleyball	1 hr
PEGN 220 Varsity Rifle Team	1 hr
PEGN 222 Men's Gymnastics II	1 hr
PEGN 224 Jogging	1 hr
PEGN 226 Weight Training	1 hr
PEGN 229 Varsity Soccer	1 hr
PEGN 230 Varsity Cross Country	1 hr
PEGN 231 Varsity Football	1 hr
PEGN 232 Varsity Basketball	1 hr
PEGN 233 Varsity Swimming	1 hr
PEGN 234 Varsity Gymnastics	1 hr
PEGN 235 Varsity Wrestling	1 hr
PEGN 236 Varsity Track	1 hr
PEGN 237 Varsity Baseball	1 hr
PEGN 238 Varsity Golf	1 hr
PEGN 239 Varsity Tennis	1 hr
PEGN 240 Varsity Volleyball	1 hr
PEGN 242 Varsity Softball	1 hr
PEGN 255 Jazz II	1 hr
PEGN 260 Intermediate Ballet	1 hr
PEGN 261 Intermediate Modern Dance	1 hr
PEGN 277/278/279 Special Topics	1/2/3 hrs
PEGN 310 Intermediate Tae Kwon Do	1 hr
PEGN 353 American Red Cross Lifeguard Training	2 hrs
PEGN 377/378/379 Special Topics	1/2/3 hrs
PEGN 453 Water Safety Instructor—ARC	2 hrs
PEGN 477/478/479 Special Topics	1/2/3 hrs

### Physical Education Major Courses

PEMJ 177/178/179 Special Topics	1/2/3 hrs
PEMJ 277/278/279 Special Topics	1/2/3 hrs
PEMJ 320 Dance Workshop	1 hr
PEMJ 322 Dance Workshop	1 hr
PEMJ 377/378/379 Special Topics	1/2/3 hrs
PEMJ 422 Dance Workshop	1 hr
PEMJ 423 Dance Workshop	1 hr
PEMJ 477/478/479 Special Topics	1/2/3 hrs

### Physical Education Courses

<b>PHED 150 Methods of Teaching Individual Sports</b>	<b>3 hrs</b>
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.	
<b>PHED 151 Methods of Teaching Team Sports I</b>	<b>3 hrs</b>
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.	
<b>PHED 152 Methods of Teaching Team Sports II</b>	<b>1 hr</b>
A required class for physical education majors/minors who are preparing to teach in elementary and secondary schools. Instruction will focus on performance, analysis, methods of teaching and evaluation of skills utilized in soccer, team handball and non-traditional activities.	
<b>PHED 153 Methods of Teaching Conditioning Activities</b>	<b>1 hr</b>
A required class for physical education majors/minors who are preparing to teach in elementary and secondary schools. Instruction will focus on performance, analysis, methods of teaching, and evaluating conditioning activities to increase physical fitness.	
<b>PHED 177/178/179 Special Topics</b>	<b>1/2/3 hrs</b>
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. <i>Prereq: Department permission.</i>	
<b>PHED 200 Anatomy and Physiology</b>	<b>5 hrs</b>
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.	
<b>PHED 204 Kinesiology (Biomechanics of Physical Activity)</b>	<b>3 hrs</b>
A required class for sports medicine and physical education majors/minors to scientifically analyze the techniques involved in the performance of human movement skills. <i>Prereq: PHED 200.</i>	
<b>PHED 209 Bio-Fitness</b>	<b>2 hrs</b>
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.	
<b>PHED 231 Service Teaching</b>	<b>1 hr</b>
<b>PHED 233 Service Teaching</b>	<b>1 hr</b>
<b>PHED 240 History and Foundation of Physical Education</b>	<b>2 hrs</b>
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.	
<b>PHED 250 Methods of Teaching Aquatics</b>	<b>2 hrs</b>
A required 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, lifesaving strokes, side stroke, and elementary backstroke are studied to prepare students to teach swimming in physical education classes.	
<b>PHED 251 Methods of Teaching Gymnastics</b>	<b>3 hrs</b>
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.	



**PHED 257 Physical Education for the Classroom Teacher** 2 hrs  
A methods and materials course in which the prospective classroom teacher gains knowledge in organizing and implementing a physical education program. Not intended for students majoring in physical education.

**PHED 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**PHED 281 Motor Development** 2 hrs  
A required course for physical education majors and minors. Instruction will focus on principles of motor development, with implications for learning gross motor skills. Consideration of the factors associated with individual differences in attaining motor proficiency during childhood and adolescence will be examined.

**PHED 287 Cooperative Education** 3 hrs  
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.  
*Prereq: Nine credit hours in concentration, approval by Cooperative Education Office, and department permission.*

**PHED 300 Physiology of Exercise** 4 hrs  
A lecture/laboratory course concerned with human responses and adaptations to muscular activity. The enhancement of health and physical fitness for the general population, optimizing performance in the various types and levels of competitive athletics.  
*Prereq: SPMD 200.*

**PHED 305 Practical Concepts of Conditioning** 2 hrs  
A practical experience in applying the concepts and theories of conditioning to in-class situations as well as coaching. Programs such as interval training will be designed and experienced by the student for use in a particular situation.

**PHED 312 Athletic Training and Physiotherapy** 2 hrs  
For prospective coaches and physical educators. Principles and skills of athletic training and physiotherapy. Lectures, demonstration, and practice of massaging, bandaging, taping, and therapeutic measures as applied in athletic activities and injuries.  
*Prereq: SPMD 200.*

**PHED 316 Foundations of Coaching** 2 hrs  
Practical and scientific information necessary for the implementation of a successful coaching program.

**PHED 331 Service Teaching** 1 hr

**PHED 333 Service Teaching** 1 hr

**PHED 334 Adapted Physical Education** 3 hrs  
A lecture and participation course covering the philosophy and goals of adaptive physical education, the relationship of adaptive physical education to the general physical education program, the needs and characteristics of the students with disabilities, and the designing of exemplary adapted physical education programs. Supervised fieldwork required.

**PHED 350 Methods of Teaching Rhythmic Activities** 1 hr  
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 and dance skills.

**PHED 351 Methods of Teaching Fundamental Movement and Movement Education** 1 hr  
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 movement skills.  
*Prereq: PHED 281.*

**PHED 352 Methods of Teaching Elementary Physical Education** 2 hrs  
A required course for physical education majors who are preparing to teach and direct physical education experiences for elementary school children. The course focuses on theory and practical experience in physical education in the elementary school. It presents a variety of activities and teaching styles needed to meet the needs of children in the elementary school years.  
*Prereq: PHED 351.*

**PHED 353 American Red Cross Lifeguarding** 3 hrs  
American Red Cross (ARC). This course covers CPR for the professional rescuer (CPR-PR), first aid, and in-water rescue skills. ARC lifeguarding certificates are awarded upon successful course completion.

**PHED 367 Methods and Materials in Physical Education** 3 hrs  
Methods and use of materials in the teaching of activities in the elementary and secondary grades. Unit and lesson planning, classroom management, audio-visual aids. Observations of physical education classes at different levels required. Entry into College of Education required.

**PHED 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**PHED 381 Motor Development of the Young Child** 3 hrs  
A course designed specifically for early childhood minors and others interested in young children. A study of the sequential development of motor skills during early childhood with focus on children ages birth to eight years. Investigation and application of the major learning theories in relationship to motor behavior, with specific implications for motor development programs for students of different abilities. Methods of assessment and developmentally appropriate practices for planning and conducting movement curricula will be addressed. No credit in PHED 281.

**PHED 382 Motor Learning** 3 hrs  
A required course for physical education majors. Instruction will focus on learning the processes underlying skilled performance, how skilled performances are learned, and how to apply the principles of skilled performance and learning in teaching and coaching situations.  
*Prereq: PSY 101 or instructor permission.*

**PHED 387 Cooperative Education in Physical Education** 3 hrs  
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.  
*Prereq: Nine credit hours in concentration, approval by Cooperative Education Office, and department permission.*

**PHED 388 Assessment in Adapted Physical Education** 1 hr  
A study of the process of assessing gross motor functioning of students who exhibit a variety of disabilities. Investigation of the legislative mandates requiring assessment and application of the latest assessment instruments for students with disabilities. Fieldwork required.  
*Prereq: PHED 334.*

**PHED 389 Sport and Activity for the Disabled** 1 hr  
A course designed to investigate sports organizations that serve people with disabilities. Topics to be explored include the role of the United States Olympic Committee, 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 non-competitive opportunities.

**PHED 400 Philosophical Aspects of Physical Education and Sport** 2 hrs

**PHED 405 Women in Sports 3 hrs**

Patterns, problems, and conditions associated with women's sports involvement in selected world cultures; the sportswoman in American society.

**PHED 421 Legal Aspects of Sport, Physical Education, and Recreation 2 hrs**

Individual rights, due process, selected legal concepts and principles, liability, safe environments, risk management, contracts, insurance, and other selected topics.

*Prereq: Senior standing.*

**PHED 434 Adapted Preschool Physical Education 1 hr**

This course presents instructional strategies and curricular models of instruction for preschool-aged children (age three to five) with special needs or who are at-risk for disabilities and school failure. Planning and effecting gross motor activity programs, assessment procedures, and activity sequences will be emphasized. Legislative mandates and rationale for the development of preschool motor activity programs will be discussed. Supervised field experience required.

*Prereq: PHED 334 or permission.*

**PHED 440 Tests and Measurements in Physical Education 2 hrs**

The discriminating selection, administration, interpretation, and use of standardized tests and measurements in physical education. Entry into College of Education required.

**PHED 453 American Red Cross Water Safety and Lifeguard Instructor 3 hrs**

This course offers students American Red Cross (AR) Certification in instructor candidate training (IT), water safety instructor (WSI), lifeguarding instructor (LGI), waterfront lifeguarding instructor (WFI), and head lifeguarding instructor (HGI). Demonstration; explanation, analysis, practice of teaching skills, use of manuals and videos are used to implement the course content.

**PHED 477/478/479 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**PHED 487 Cooperative Education in Physical Education 3 hrs**

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.

*Prereq: Nine credit hours in concentration, approval by Cooperative Education Office, and department permission.*

**PHED 490 Field Experience in Adapted Physical Education 4 hrs**

Required course for "teachers of physical education for handicapped individuals; approval." A directed 15-week field experience in teaching physical education to handicapped persons in a school setting.

*Prereq: Department permission.*

**PHED 495 Senior Seminar 1 hr**

A synthesis of educational theories presented in the undergraduate physical education program and the student teaching experience.

**PHED 497/498/499 Directed Study 1/2/3 hrs**

Directed study in areas not covered in other course offerings, or greater depth of study in areas in which the student has a continuing interest. Students will be assigned to select faculty members for direction, consultation, and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a grade point average of 3.0 or above, and who have completed the appropriate background courses.

*Prereq: Department permission.*

### Recreation and Park Management and Therapeutic Recreation Courses

**RECR 100 Introduction to Recreation and Leisure 3 hrs**

A basic overview of the fields of recreation and leisure service delivery for the major student. Emphasizes the broad aspects of recreation and

leisure as they relate to the delivery of human services. Includes history, philosophy, trends and job opportunities. Lecture, discussion, film, and speakers from the field.

**RECR 165 Leisure Lifestyles 3 hrs**

An introduction to leisure lifestyles as related to oneself and how leisure behavior relates to an individual's work, education, economy, ethnic beliefs and values. The course involves individual leisure awareness, choices, goals, and strategies to assist in creating a quality and fulfilling life. Lecture, discussion, evaluation techniques and self-exploration. Helpful for majors in any discipline.

**RECR 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**RECR 180 Activity Analysis and Adaption 2 hrs**

Develops the skills necessary to analyze activities to find inherent characteristics that contribute to program objectives for special populations. Components of activity analysis (physical, cognitive, affective and social/interactional skills) are studied in detail. Lecture, discussion and experiential learning.

**RECR 200 Recreation for Persons with Disabilities 3 hrs**

An overview of therapeutic recreation relative to physically disabled, mentally impaired, emotionally impaired, socially deviant, the aged, and chemically dependent within clinical, outpatient and community settings. Lecture, discussion, film, readings, and 20 hours of fieldwork experience.

**RECR 210 Camping for Special Populations 2 hrs**

This course will provide practical experience for the student interested in working as a counselor at a camp for special populations. It will also provide experience in setting up a camp since the student will be responsible for the development of all materials and programming for a week end camp.

*Prereq: RECR 200 or SPGN 251.*

**RECR 250/251/252/253 Fieldwork in Recreation/Therapeutic Recreation 1 hr each**

An introductory course in fieldwork. Students select a site for recreation leadership within a community or clinical setting. Students spend 60 hours on-site and participate in five classroom meetings.

**RECR 260 Recreation Leadership 3 hrs**

Methods and techniques of group and individual leadership skills at three levels: direct face-to-face leadership, supervision, and management. An overview of conceptual and theoretical components of the leadership process; practical application of various leadership methods and procedures in a cross section of leisure service settings. Lectures, discussion and experiential learning.

**RECR 271 Park Maintenance 3 hrs**

Principles, practices, and techniques of maintenance and management of outdoor recreation areas and facilities. Resource maintenance and management; maintenance and depreciation of equipment; personnel practices in maintenance; safety practices, legal issues; and public relations. Lecture, speakers, park visitations and projects.

*Prereq: RECR 100 or department permission.*

**RECR 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**RECR 280 Camping 2 hrs**

History of organized camping; camping on federal and state recreation areas; information sources for camping; planning and preparation (equip-

ment, 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.

**RECR 290 Practical Research in Recreation 3 hrs**

The purpose of this discussion/lecture course is to understand and apply basic research design, evaluation procedures and interpretation, and computer and statistical techniques to assessment, planning and evaluation processes in the leisure services: *The course is required for recreation and therapeutic recreation majors.*

*Prereq: MATH 105.*

**RECR 300 Principles of Therapeutic Recreation 3 hrs**

Leadership, assessment, adaption, and programming techniques to meet the leisure needs of special populations in today's society. Task analysis, facilitation techniques, leisure counseling, programming, and adaptation of specific activities. Lecture, experiential participation, and 30 hours of community fieldwork.

*Prereq: RECR 200 or RECR 260.*

**RECR 310 Leisure and the Older Adult 3 hrs**

Interdisciplinary approach for working with older persons through physical activities, socialization, drama, music, dance, fitness and facilitation techniques. Aspects of aging, concepts of leadership and individualized programming are studied and then experienced through activities at senior centers and long-term care facilities. Lecture, group assignments and experiential participation.

**RECR 320 Leisure Education 3 hrs**

Concepts and techniques of leisure education for use with all populations. Leisure awareness, social interaction skills, leisure activity skills and leisure resources. Educates the student as a provider of leisure services. Lecture, speakers, readings and participation.

**RECR 330 Therapeutic Recreation: Substance Abuse 3 hrs**

The use of leisure and recreation in the prevention and/or rehabilitation of chemical dependency. Skill development in areas of leisure education, group dynamics, facilitation techniques, communication, values clarification, decision making, games and sports, new games, socialization and outdoor/nature techniques, and family leisure education. Lectures, discussions and experiential learning.

*Prereq: RECR 200.*

**RECR 340 Techniques in Therapeutic Recreation 3 hrs**

Introduction to specific techniques used in therapeutic recreation, including counseling theory, psychotherapies, medical terminology, and transfers and lifts. Lecture, speakers, assessments, and 30 hours of fieldwork.

*Prereq: RECR 200.*

**RECR 360 Recreation Program Planning 3 hrs**

Learning to plan and deliver leisure experiences to an individual or group of individuals. Use of systematic way of identifying, developing, implementing, evaluating, and revising programs to meet people's leisure needs and interests. Plan individual programs. Lecture, speakers, projects.

*Prereq: RECR 260.*

**RECR 361 Special Events in Recreation 3 hrs**

This upper-level course is designed to inform the student of current trends in special events and management. The course will combine lecture materials with small group techniques to develop and present a special-event idea to a panel of professional recreators.

*Prereq: RECR 100, RECR 260, and RECR 360.*

**RECR 370 Leisure Facility Design and Management 3 hrs**

A required course for all recreation majors and a beneficial course for all students in human service studies who will coordinate and develop pub-

lic facilities. The course will cover vital information needed to plan, develop, construct, and manage various types of leisure facilities. The course will utilize lecture, discussion, guest speakers, and field trips to enhance the students' understanding of the topic.

**RECR 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**RECR 390 Outdoor Recreation 3 hrs**

History of outdoor recreation and outdoor recreation management. A systems view of outdoor recreation resources; federal, state, and local agencies that provide outdoor recreation opportunities; their history and management philosophies and problems. Tools utilized by managers of outdoor recreation resources to provide opportunities for recreation. Lecture, speakers, projects.

**RECR 400 Therapeutic Recreation Processes and Services 3 hrs**

The philosophical and theoretical premises on which program design is developed; sequential development components of program design, implementation and evaluation; specific management concerns that are crucial to the effective operation and evaluation of systems-designed therapeutic recreation programs. Lectures, study of ongoing programs, and assessment through role-playing.

*Prereq: RECR 200, RECR 300, RECR 340; or department permission.*

**RECR 410 Professional Preparation 1 hr**

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.

**RECR 430 Issues in Therapeutic Recreation 3 hrs**

This required course is designed for the senior therapeutic recreation major. Students will gain an awareness of the current issues affecting the practice of therapeutic recreation.

*Prereq: RECR 200, RECR 300, RECR 400.*

**RECR 449 Therapeutic Recreation Practicum 8 hrs**

A full-time, 15-week, 600-hour experience in an approved hospital, outpatient, or community setting under direction of a certified therapeutic recreation specialist and University supervisor. Leadership, supervisory, and administrative experience of a practical nature.

*Prereq: Candidate status for a minimum of one semester prior to application for practicum; completion of 90 percent of all academic courses including RECR 100, RECR 200, RECR 250, RECR 260, RECR 300, RECR 340, RECR 360, RECR 400, RECR 460, and RECR 465; completion of 250 hours of fieldwork; grade point average of 2.50 overall and 2.75 in all major classes.*

**RECR 450 Park Planning and Design 3 hrs**

Overview of history of park planning and design; scope of park planning, types of park plans; planning processes, systems, and site-level planning; work program design; use of consultants; sources for planning; recreation standards; analysis of supply and demand for recreation and open space; site analysis; use area relationships; and site plan development and interpretation. Lab: maps and aerial photos, drawing and perspective; computer drawing; site analysis and design. Lecture, projects, field trips.

*Prereq: RECR 100.*

**RECR 460 Park and Recreation Administration 3 hrs**

Influence of organizational thought as related to park and recreation agencies. Organizational structures of park and recreation agencies, budgeting, management by objectives, public and private financial sources,

volunteerism, marketing of park and recreation resources, pricing services and products, and administrative responsibility and ethics. Lectures, speakers, projects.

*Prereq: RECR 100, RECR 260, RECR 360, or permission.*

**RECR 465 Park and Recreation Management** 3 hrs

Use of systems approach to agency management; nature of a problem and problem-solving model; use of public input in management decision-making; role of research in managing recreation services; personnel management practices; and basic legal issues. Lecture, speakers, projects.

*Prereq: RECR 100, RECR 260, RECR 360, or permission.*

**RECR 471 Contemporary Issues in Recreation** 3 hrs

This course is to familiarize the recreation and park management student with vital issues that practicing professionals are facing on a daily basis. The class will utilize a seminar format with each session focusing on a single issue. A wide range of leading authorities in the field will present from their perspective followed by an in-depth discussion session on how this topic affects the future professional.

*Prereq: RECR 100, RECR 260, RECR 360, RECR 460.*

**RECR 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**RECR 481 Adapted Aquatics** 2 hrs

Aquatic instructional techniques in working with special populations including physically disabled, developmentally disabled, emotionally impaired and the aged. Lectures, films, swimming skills, adaptations of swimming skills, and 20 hours of fieldwork.

**RECR 489 Recreation Practicum** 8 hrs

A full time, 15 week, 600-hour experience in a leisure services setting under a qualified recreation/leisure specialist and University supervisor.

*Prereq: Completion of 90 percent of all academic courses including RECR 100, RECR 200, RECR 250, RECR 260, RECR 360, RECR 460, and RECR 465; 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 497/498/499 Directed Study** 1/2/3 hrs

An opportunity for directed study in areas not covered in other course offerings, or greater depth of study in areas of continued interest for the student. Students will be assigned to select faculty members for direction, consultation, and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a grade point average of 3.0 or above and who have completed the appropriate background courses.

### Sports Medicine Courses

**SPMD 119 Orientation to Sports Medicine** 1 hr

A class for students interested in sports medicine. An introductory course to orient students to the specialized major areas of athletic training and exercise science.

**SPMD 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPMD 200 Anatomy and Physiology** 5 hrs

Required lecture course for sports medicine majors that examines the structure and function of the human body. Designed to accompany laboratory material in ZOOL 318.

*Prereq: BIOL 105, CHEM 120, 2.5 GPA.*

**SPMD 219 Introduction to Athletic Training** 3 hrs

An introduction designed to expose the student to the discipline of athletic health care. The student will study modern concepts of the prevention and care of athletic injury and common health care issues.

*Prereq: SPMD 119.*

**SPMD 221 Therapeutic Modalities for Athletic Trainers** 2 hrs

A detailed study, with laboratory experiences, of theory, applications, physiological effects, indications, and contraindications of commonly used therapeutic modalities in the practice of athletic training.

*Prereq/coreq: SPMD 225.*

**SPMD 225 Practicum I** 2 hrs

A supervised educational experience in athletic training under the supervision of a certified athletic trainer.

*Prereq: GPA 2.8, SPMD 119 and department permission.*

**SPMD 277/278/279 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPMD 290 Practicum II** 2 hrs

A supervised athletic training practicum designed to incorporate theories and technical skills learned in the prerequisite courses. The objective is to obtain hands-on experiences in an intercollegiate setting.

*Prereq: Department permission. Coreq.: SPMD 295, GPA 2.9.*

**SPMD 295 Recognition and Evaluation of Athletic Injury** 4 hrs

A study of the principles, procedures and techniques that are commonly utilized in the recognition and assessment process of athletic injury. Emphasis is on the student taking patient history, conducting the physical examination, and the primary care features of athletic injury.

*Prereq: SPMD 225 and 2.9 GPA.*

**SPMD 305 Kinesiology-Tissue Mechanics** 3 hrs

A required course for athletic training majors in the sports medicine program. Instruction will focus on the laws of physics as they are adapted to explain biological phenomena.

*Prereq: PHY 221, SPMD 200, and a 2.7 GPA.*

**SPMD 315 Applied Sport Psychology** 3 hrs

A course of study that provides information to help the prospective teacher/coach or sports medicine student apply behavioral science principles to the performance aspects of sport and human performance.

*Prereq: PSY 101/Candidacy.*

**SPMD 321 Therapeutic Modalities for Athletic Trainers** 2 hrs

A detailed study of theory, applications, physiological effects, and indications and contraindications of commonly used therapeutic modalities in the practice of athletic training.

*Prereq: SPMD 219, SPMD 225. Coreq: SPMD 322.*

**SPMD 322 Therapeutic Exercise for Athletic Trainers** 3 hrs

A study of the principles of applications, physiological effects, and indications and contraindications of commonly used therapeutic exercise methods in the practice of athletic training.

*Prereq: SPMD 219, SPMD 225. Coreq: SPMD 321.*

**SPMD 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPMD 390 Preinternship** 2 hrs

This course is organized and conducted to include a supervised clinical experience that allow the advanced student to assist in the skills, procedures and management of athletic injury and health care.

*Prereq: Candidacy and department permission; 3.0 GPA.*



**SPMD 410 Laboratory Techniques in Human Performance****Analysis****4 hrs**

A required course for students majoring in the exercise portion of the sports medicine program. Instruction will focus on techniques of human performance analysis including graded exercise testing, measurement of resting and exercise blood pressure, body composition, EKG recordings, indirect measures of energy expenditure, estimated MET levels from walking, running, leg ergometry, arm ergometry, and stepping exercises, environmental considerations in exercise testing and training, and exercise prescription for various populations.

*Prereq:* SPMD 430 and Candidacy.

**SPMD 421 Legal Aspects of Sports Medicine****3 hrs**

This course examines the legal issues surrounding the field of sports medicine including: individual rights, due process, selected legal concepts and principles, liability, safe environments, risk management, contracts, insurance, and other select topics.

*Prereq:* Candidacy.

**SPMD 425 Sports Medicine Practicum—Exercise Science****2 hrs**

A full-semester experience in a department-approved agency or institution under the direction of certified personnel to work in areas including, but not limited to, adult fitness, cardiac rehabilitation, physical therapy, and other related areas.

*Prereq:* PHED 300, Candidacy.

**SPMD 430 Basic Principles of Electrocardiography****3 hrs**

A three-hour undergraduate course on the basics of electrocardiography. The student will learn the basic concepts of conduction, rate, rhythm, axis determination, hypertrophy infraction, and the effects of drug therapy.

*Prereq:* Candidacy.

**SPMD 431 Pathology for Sports Medicine****3 hrs**

A required course for sports medicine majors that relates normal body functioning to the physiologic changes that occur as a result of injury and disease, and examines the effects of physical activity on these processes.

*Prereq:* SPMD 200 and CHEM 120, or equivalent.

**SPMD 432 Introduction to Exercise Programming****3 hrs**

A required course for students majoring in exercise science. This course provides information needed to develop, implement, and manage exercise programs in a variety of settings. Within the context of each program setting the following issues will be discussed: 1) the health screening; 2) implementation and management of the exercise prescription; 3) identification and development of exercise leadership skills; and 4) exercise compliance issues.

*Prereq:* SPMD 200, ZOOL 318, and PHED 300. *Coreq:* SPMD 410.

**SPMD 477/478/479 Special Topics****1/2/3 hrs**

Offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations.

*Prereq:* Candidacy and department permission.

**SPMD 480 Internship—Exercise Science****8 hrs**

A directed full-semester field experience in a department-approved agency or institution under the direction of certified personnel to work with adult fitness and/or cardiac rehabilitation.

*Prereq:* Candidacy and department permission.

**SPMD 490 Internship Athletic Training****8 hrs**

The course is clinical experience to be conducted at an off-campus agency. The agency provides direct supervision at the site. The course is limited to senior students in their last semester. The student will be expected to increase his/her skills and knowledge in the key task areas of athletic training.

*Prereq:* Candidacy and department permission.

## Leadership and Counseling

**Web site:** [www.emich.edu/public/leadcons/home.html](http://www.emich.edu/public/leadcons/home.html)

**James E. Berry**

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**Professors:** Charles M. Achilles, Irene M. Ametrano, Helen R. Ditzhazy, Beverley B. Geltner, Alison J. Harmon, John G. Pappas, William J. Price, Jerry H. Robbins, Donna M. Schmitt, Martha W. Tack, Louis C. Thayer

**Associate Professors:** James E. Barott, James E. Berry, Yvonne L. Callaway, Sue A. Stickel, Jaclynn R. Tracy

**Assistant Professors:** Elizabeth A. Broughton, Suzanne M. Hobson

**Graduate-level Study**

Students who wish to enter the educational leadership program or the counseling and student affairs practice 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. Undergraduate students may not enroll in any graduate course work in the department of Leadership and Counseling. 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, as well as many other leadership positions in education, e.g., adult education, business management, vocational education, community education, personnel, public relations, community college.

The counseling and student affairs practice program is concerned with the professional preparation of elementary and secondary school counselors, student personnel workers in higher education, and counselors and personnel workers in noneducation settings, e.g., employment counselors, vocational rehabilitation counselors, community agency personnel, business/industry personnel. This program provides course work leading to completion of the master's and specialist degrees.

### Educational Leadership Courses

**EDLD 477/478/479 Special Topics****1/2/3 hrs**

Courses that can be offered on an experimental basis for one semester for purposes of meeting special needs, interests and/or innovations.

*Prereq:* Department permission.

### Counseling and Student Affairs Practice Courses

**CSAP 100 Career Exploration and Decision-Making****3 hrs**

Self-exploration (values, interests, goals) as it relates to careers and the world of work. Presentation in an experimental format of career exploration and personal decision-making strategies and processes. Investigation of career planning and resources (people and materials).

**CSAP 450 An Introduction: Counseling Concepts and****Skills****3 hrs**

Introduction to basic concepts of counseling relationships; training in basic counseling skills; experiential learning activities which focus on self-development, interpersonal relationships, and related issues; and initial exposure to counseling theory and process. Open to juniors and seniors or by department permission; recommended for those planning a career in the helping professions.

**CSAP 477/478/479 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq:* Department permission.

# Special Education

Web site: [www.emich.edu/public/speced/speced.html](http://www.emich.edu/public/speced/speced.html)

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**Professors:** Carol Gorenfio, Ronald Hoodin, Robert D. Kreger, Marylyn Lake, Nora Martin, Sandra E. McClennen, Gary B. Navarre, Dale L. Rice  
**Associate Professors:** George J. Barach, Michael Beebe, Lawrence M. Bemish, Joe Coyner, Willie P. Cupples Jr., Nancy Halmhuber, Gayle Nash, Kathleen S. Quinn, Lynne A. Rocklage, Kenneth Schatz, Margaret (Jody) Smith, Lech Wisniewski

**Assistant Professors:** Roberta Anderson, H. A. Hasan, Joan Kaderavek, Tsai-Ping Alicia Li, Lori Pakulski, Lizbeth Stevens

The Special Education department is among the oldest and most prestigious preparation programs for teachers of students with disabilities in the nation. It is the largest special education program in Michigan and among the most extensive in the country because of its numerous course offerings, experienced faculty, location, and affiliations with schools, clinics, institutions, agencies, and hospitals in the metropolitan area that surrounds the University.

The department provides courses that prepare students to educate individuals with special needs and where necessary to meet the basic requirements for the State Provisional Elementary and Secondary Certificate in Teaching.

In addition, 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 pathology as well as observation opportunities for students in other programs of study. Clinical outpatient services are available to college students and to children and adults from the surrounding areas.

Clinical speech and language evaluations and therapy and complete audiological services are offered, including diagnostic audiology, hearing aid evaluation and selection, aural rehabilitation, pre-nursery evaluation and training, and parent counseling. As part of their preparation, majors in speech and language impaired and hearing impaired may be directly involved in the delivery of these services under staff supervision.

2. A parent-infant management program for the hearing impaired, which provides guidance for parents of hearing impaired children and enables them to help their child develop auditory/speech/language skills during their formative years.

Parents/caregivers are expected to work in the clinical setting with their infant/toddler and discuss problems concerning their child. University students also have the opportunity to observe and participate in skill development.

3. **CENTER FOR ADAPTIVE TECHNOLOGY EDUCATION (CATE)** The Center for Adaptive Technology Education is a program and facility in the department of Special Education, Rackham Building. The CATE program focuses on the use of adaptive and assistive technology to support and facilitate the activities and pursuits of persons with disabilities. CATE has three broad missions that directly relate to the University's commitment to teaching, service and research. The teaching mission of CATE is reflected in preservice and in-service educational programs. CATE's service mission focuses on providing services to EMU students, staff and faculty with disabilities, as well as providing adaptive technology evaluation and training services to persons with disabilities in the local community. CATE also is involved in research and develop-

ment activities that focus on the design and development of innovative software and hardware, as well as unique adaptations to existing technology.

Students not majoring in special education may enroll in a planned program consisting of a sequence of special education courses to meet personal and professional goals. Designed primarily for those majoring in physical education or recreation, technology education, and music education, the program provides background on handicapping conditions but will not offer sufficient specialized work to meet endorsement requirements to teach students with disabilities. The sequence of courses is to be planned in advance and have the written approval of the head of the department of Special Education.

## Degrees:

Bachelor of Science and Bachelor of Arts

## Programs of Study

### Majors:

Emotionally Impaired (K-12)

Hearing Impaired (K-12)

Mentally Impaired (K-12)

Physically and Otherwise Health Impaired (K-12)

\*Speech and Language Impaired (Public School and Healthcare)

\*Speech and Language Impaired (Healthcare)

Visually Impaired (K-12)

*\*The speech and language impaired program is a five-year course of study to conform with professional and state guidelines and culminates in a master's degree.*

### Minors:

Students planning on teaching must complete one subject area minor of 20 hours or a group minor of 24 hours. The minor must be in a teaching subject appropriate to and approved for the level of teaching certificate for which the student is qualifying. Elementary certificate candidates may complete an approved planned program in lieu of a minor when circumstances warrant.

## Advising

Students are assigned a faculty adviser from the program area he/she elects as a major. The adviser will monitor the student's progress throughout his/her professional preparation however, 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 can inform students of special area requirements and procedures. For example, students in the speech and language impaired and the hearing impaired program areas must have permission from their advisers prior to registration.

## Faculty advisers

Emotionally impaired: Robert Kreger, Jody Smith

Hearing impaired: Gayle Nash

Mentally impaired: Marylyn Lake, Nora Martin

Physically and otherwise health impaired: Roberta Anderson

Speech and language impaired: Ronald Hoodin, Kenneth Schatz

Visually impaired: George Barach, Alicia Li

## Admission

Admission requirements to the University, the teacher education 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 letter of recommendation from a faculty member in the department of Special Education and following acceptance into the teacher education program. Program area faculty will determine admission.

## Admission and Continuance Criteria (For All Programs Except Speech and Language Impaired)

1. Completion of 56 credit hours of college credit and with an EMU grade point average of 2.50 or better.
2. Completion of SPGN 251 Education of Exceptional Children and the introductory course in the major area of study with a grade of "C" or better. These introductory courses are:
  - a. Emotionally impaired: SPEI 301 Emotionally Impaired Children and Adolescents.
  - b. Hearing impaired: (see statement under Hearing Impaired).
  - c. Mentally impaired: SPMI 350 Introduction to Mental Retardation.
  - d. Physically and otherwise health impaired: SPPI 310 Developmental Sciences for Teachers of the Physically and Health Impaired.
  - e. Visually impaired: 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 letter of recommendation from a faculty member in the Department of Special Education.

Criteria for continuance in a program of study in the department of Special Education is dependent upon:

1. Maintenance of a 2.50 cumulative grade point average.
2. Maintenance of a 2.50 cumulative grade point average in major courses in program of study.
3. Completion of all courses in the major with a grade of "C" or better. Students will be required to retake any major course in which they earn a grade below "C." A major course may be repeated only once.
4. Demonstration of performance that indicates reasonable aptitude, maturity, stability, skill, and understanding necessary for success in the professional field of special education.

The continuance or termination decision will be made by the faculty in the program area. Students may request a meeting with the faculty of a program area to apprise them of any extenuating circumstances that may aid them in arriving at a fair and equitable decision. The faculty decision will be final and will be transmitted to the student in writing by the department head.

Nothing in this department's procedures will negate University or College of Education action for students on academic, administrative, or social probation.

## 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 35-45 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.
3. Must pass a speech and hearing screening.
4. Must meet application submission deadlines:
  - o Fall semester: February 15
  - o Winter semester: October 15

When the number of applicants exceeds program capacity, a specific formula will be applied to make selections. Preference will be given on the basis of GPA, previous enrollment at EMU, membership in a protected minority group.

To be allowed to continue in the speech-language pathology program, the student must meet the following:

1. Maintenance of a cumulative overall GPA of 2.75 or better.
2. Maintenance of a cumulative major GPA of 3.0 or better.
3. Completion of all major academic courses with a grade of "C" or better. Courses in which a grade of "C-" or lower is achieved must be repeated and may be repeated only once. A student must retake the course in which the lowest grade was received. No more than one course may be repeated. Students will not be able to enroll in courses at the management level or beyond until this requirement is met. Students must remain in their planned tracks if they are required to repeat. This implies ineligibility to take advanced SPSI courses for one or two terms.
4. Completion of all major clinical courses with a grade of "C+" or better. Clinical courses in which a grade of "C" or lower is achieved must be repeated before the student is allowed to continue with the next level of courses and may be repeated only once.
5. Demonstration of behaviors which indicate reasonable stability, maturity, understanding and aptitude as judged necessary for predicted success as a speech-language pathologist. Such qualitative judgements will be made by the SLP faculty.
6. Students on academic probation will not be allowed to enroll in major courses until the probation is lifted and their overall GPA is 2.75.

### 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 the full faculty for discussion of academic performance and continuation in the program.

### General Information

Fieldwork in both general and special education is required. Prestudent teaching experiences are required of all candidates pursuing a teaching certificate. (See Prestudent Teaching) Majors in special education are required to complete practicums 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.

### Certification—Special Education

Certification in either elementary or secondary (regular) education is required for all programs of study in special education except speech and language impaired (see SLI program description). Successful completion of any program of study leads to a K-12 special education endorsement.

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 other applicants 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 International Council for Exceptional Children.

The hearing impaired and speech and language impaired programs also are certified by national professional associations. 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 of Clinical Competence in Speech Pathology. Specific requirements may be obtained from the advisers in speech and language impairment.

National certification is provided by the Council on Education of the Deaf to eligible majors in the hearing impaired program. Specific requirements may be obtained from advisers in this area.

## Emotionally Impaired Elementary Teacher Certification

### ISIS major code: SP31

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 endorsed in emotionally impaired, certification code "SE," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the Council for Exceptional Children. The certification tests covering this field are #83, "Elementary Education," and #59, "Emotionally Impaired."

### Emotionally Impaired Endorsement: ..... 58-59 hours

One of:

PSY 101 General Psychology (3)	
PSY 102 General Psychology (4)	
SPGN 251 Education of Exceptional Children .....	3
PHED 257 Physical Education for the Classroom Teacher .....	2
SPGN 271 Language Development and Speech Disorders in Special Populations .....	2
*SPGN 390 Measurement and Diagnosis in Special Education .....	3
*SPGN 395 Special Needs Persons: School, Family, and Community Interaction .....	3
*SPGN 461 Classroom Management and Intervention Strategies for Handicapped Students .....	3
*SPGN 481 Adaptive Technology in Special Education .....	2
*SPGN 491 Seminar for Teachers of Special Education .....	2
SPEI 240 Introductory Clinical Experiences in Emotional Impairment .....	3
SPEI 301 Emotionally Impaired Children and Adolescents .....	3
PSY 360 Abnormal Psychology .....	3
#SOCL 202 Social Problems (satisfies general education requirement III.4) .....	3
*SPEI 401 Programming, Methods, and Curriculum for the Elementary Emotionally Impaired Child .....	4
*SPEI 449 Seminar: Current Topics in Emotional Impairment .....	2
*SPEI 488 Programming, Methods, and Curriculum for Secondary Emotionally Impaired Youth .....	4
*SPLI 468 Education of Children with Learning Disabilities .....	2
*EDUC 491 Student Teaching .....	10

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/coe/sped/ugrad/major/ei\\_te.html](http://www.emich.edu/public/catalogs/current/afac/colleges/coe/sped/ugrad/major/ei_te.html).

\*Admission to the teacher education program required.

#Advising note: This course satisfies both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

## Emotionally Impaired Secondary Teacher Certification

### ISIS major code: SP31

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 emotionally impaired, certification code "SE," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the Council for Exceptional Children. The certification tests covering this field are #59, "Emotionally Impaired," and the minor area.

### Emotionally Impaired Endorsement: ..... 64-65 hours

One of:

PSY 101 General Psychology (3)	
PSY 102 General Psychology (4)	
SPGN 251 Education of Exceptional Children .....	3
PHED 257 Physical Education for the Classroom Teacher .....	2
SPGN 271 Language Development and Speech Disorders in Special Populations .....	2
*SPGN 390 Measurement and Diagnosis in Special Education .....	3
*SPGN 395 Special Needs Persons: School, Family, and Community Interaction .....	3
*SPGN 461 Classroom Management and Intervention Strategies for Handicapped Students .....	3
*SPGN 481 Adaptive Technology in Special Education .....	2
*SPGN 491 Seminar for Teachers of Special Education .....	2
SPEI 240 Introductory Clinical Experiences in Emotional Impairment .....	3
SPEI 301 Emotionally Impaired Children and Adolescents .....	3
PSY 360 Abnormal Psychology .....	3
#SOCL 202 Social Problems (satisfies general education requirement III.4) .....	3
*SPEI 401 Programming, Methods, and Curriculum for the Elementary Emotionally Impaired Child .....	4
*SPEI 449 Seminar: Current Topics in Emotional Impairment .....	2
PSY 322 Psychology of Adolescence .....	3
CRM 354 Juvenile Delinquency .....	3
*SPGN 485 Curriculum, Programs and Services for Adolescents and Young Adults with Special Needs .....	2
*SPEI 488 Programming, Methods, and Curriculum for Secondary Emotionally Impaired Youth .....	4
*EDUC 491 Student Teaching .....	10

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/coe/sped/ugrad/major/ei\\_ts.html](http://www.emich.edu/public/catalogs/current/afac/colleges/coe/sped/ugrad/major/ei_ts.html).

\*Admission to the teacher education program required.

#Advising note: This course satisfies both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

## Hearing Impaired Elementary Teacher Certification

### ISIS major code: SP32

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 Provi-



sional Certificate endorsed in hearing impaired, certification code "SL," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the Council for Exceptional Children. The certification tests covering this field are #83, "Elementary Education," and #62, "Hearing Impaired."

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, the hearing impaired program faculty will determine who receives permission. Grade point average will be the primary criterion. It is essential to see a hearing impaired program adviser in order to begin the program sequence.

All students are considered provisional majors until such time as they successfully complete SPHI 391 and pass a language proficiency examination. The basic philosophy of the program is oral communication; however, students are exposed to manual communication during their course of study.

The hearing impaired program is in the process of developing a portfolio presentation as a capstone requirement, attached to SPGN 491 Seminar for Teachers of Special Education, for the hearing impaired program majors.

**Hearing Impaired Endorsement: ..... 68-69 hours**

*One of:*

- PSY 101 General Psychology (3)
- PSY 102 General Psychology (4)
- SPGN 251 Education of Exceptional Children ..... 3
- PHED 257 Physical Education for the Classroom  
Teacher ..... 2
- SPGN 271 Language Development and Speech Disorders  
in Special Populations ..... 2
- \*SPGN 390 Measurement and Diagnosis in Special  
Education ..... 3
- \*SPGN 395 Special Needs Persons: School, Family, and  
Community Interaction ..... 3
- \*SPGN 461 Classroom Management and Intervention  
Strategies for Handicapped Students ..... 3
- \*SPGN 481 Adaptive Technology in Special Education ..... 2
- \*SPGN 485 Curriculum, Programs and Services for  
Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 486 Transition and Related Field Experiences:  
Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 491 Seminar for Teachers of Special Education ..... 2
- SPHI 228 Education of Hearing-Impaired Students ..... 3
- SPSI 332 Acoustic Phonetics: Speech Science ..... 2
- SPSI 336 Physiologic Phonetics: Anatomy and  
Physiology ..... 3
- SPSI 337 Language Acquisition ..... 3
- SPHI 375 Fundamentals of Sign Communication ..... 2
- \*SPHI 387 Introductory Practicum with Hearing-Impaired  
Students ..... 1
- \*SPHI 391 Language for Hearing-Impaired Students ..... 4
- \*SPHI 392 Introduction to Audiology ..... 2
- \*SPHI 394 Aural Habilitation/Rehabilitation ..... 3
- \*SPHI 435 Phonetics and Hearing Impairment ..... 2
- \*SPHI 436 Speech Methods for Hearing-Impaired  
Persons ..... 2
- \*SPHI 437 Adaptive Curriculum for Hearing-Impaired  
Students ..... 3
- \*SPHI 487 Speech Practicum with Hearing-Impaired  
Students ..... 1
- \*EDUC 491 Student Teaching ..... 10

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/hi\\_te.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/hi_te.html).

\*Admission to the teacher education program required.

#Advising note: This course satisfies both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

**Hearing Impaired  
Secondary Teacher Certification**

**ISIS major code: SP32**

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 hearing impaired, certification code "SL," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the Council for Exceptional Children. The certification tests covering this field are #62, "Hearing Impaired," and the minor area.

Registration for the first course in the hearing impaired sequences (SPHI 228) is by permission only. If there is greater demand for enrollment than availability of places in the class, the hearing impaired program faculty will determine who receives permission. Grade point average will be the primary criterion. It is essential to see a hearing impaired program adviser in order to begin the program sequence.

All students are considered provisional majors until such time as they successfully complete SPHI 391 and pass a language proficiency examination. The basic philosophy of the program is oral communication; however, students are exposed to manual communication during their course of study.

The hearing impaired program is in the process of developing a portfolio presentation as a capstone requirement, attached to SPGN 491 Seminar for Teachers of Special Education for the hearing impaired program majors.

**Hearing Impaired Endorsement: ..... 66-67 hours**

*One of:*

- PSY 101 General Psychology (3)
- PSY 102 General Psychology (4)
- SPGN 251 Education of Exceptional Children ..... 3
- PHED 257 Physical Education for the Classroom  
Teacher ..... 2
- \*SPGN 390 Measurement and Diagnosis in Special  
Education ..... 3
- \*SPGN 395 Special Needs Persons: School, Family, and  
Community Interaction ..... 3
- \*SPGN 461 Classroom Management and Intervention  
Strategies for Handicapped Students ..... 3
- \*SPGN 481 Adaptive Technology in Special Education ..... 2
- \*SPGN 491 Seminar for Teachers of Special Education ..... 2
- SPHI 228 Education of Hearing-Impaired Students ..... 3
- SPSI 332 Acoustic Phonetics: Speech Science ..... 2
- SPSI 336 Physiologic Phonetics: Anatomy and  
Physiology ..... 3
- SPSI 337 Language Acquisition ..... 3
- SPHI 375 Fundamentals of Sign Communication ..... 2
- \*SPHI 387 Introductory Practicum with Hearing-Impaired  
Students ..... 1
- \*SPHI 391 Language for Hearing-Impaired Students ..... 4
- \*SPHI 392 Introduction to Audiology ..... 2
- \*SPHI 394 Aural Habilitation/Rehabilitation ..... 3
- \*SPHI 435 Phonetics and Hearing Impairment ..... 2
- \*SPHI 436 Speech Methods for Hearing-Impaired  
Persons ..... 2
- \*SPHI 437 Adaptive Curriculum for Hearing-Impaired  
Students ..... 3
- \*SPHI 487 Speech Practicum with Hearing-Impaired  
Students ..... 1

- \*SPGN 485 Curriculum, Programs and Services for Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 486 Transition and Related Field Experiences: Adolescents and Young Adults with Special Needs ..... 2
- \*EDUC 491 Student Teaching ..... 10

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coe/sped/ugrad/major/hi\\_ts.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coe/sped/ugrad/major/hi_ts.html).

\*Admission to the teacher education program required.

## Mentally Impaired

### Elementary Teacher Certification

ISIS major code: SP33

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 endorsed in mentally impaired, certification code "SA," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the Council for Exceptional Children. The certification tests covering this field are #83, "Elementary Education," and #56, "Mentally Impaired."

**Mentally Impaired Endorsement:** ..... 54-55 hours

One of:

- PSY 101 General Psychology (3)
- PSY 102 General Psychology (4)
- SPGN 251 Education of Exceptional Children ..... 3
- PHED 257 Physical Education for the Classroom Teacher ..... 2
- SPGN 271 Language Development and Speech Disorders in Special Populations ..... 2
- \*SPGN 390 Measurement and Diagnosis in Special Education ..... 3
- \*SPGN 395 Special Needs Persons: School, Family, and Community Interaction ..... 3
- \*SPGN 461 Classroom Management and Intervention Strategies for Handicapped Students ..... 3
- \*SPGN 481 Adaptive Technology in Special Education ..... 2
- \*SPGN 485 Curriculum, Programs and Services for Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 486 Transition and Related Field Experiences: Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 491 Seminar for Teachers of Special Education ..... 2
- SPMI 240 Preclinical: Mentally Impaired ..... 3
- SPMI 350 Introduction to Mental Retardation ..... 3
- \*SPMI 429 Curriculum Design and Education Programs for Students with Mild Retardation ..... 3
- \*SPLI 468 Education of Children with Learning Disabilities ..... 2
- \*SPMI 483 Education of Students with Moderate or Severe Retardation ..... 4
- \*SPMI 427 Educating the Elementary Student with Mild Retardation ..... 2
- \*EDUC 491 Student Teaching ..... 10

\*Admission to the teacher education program required.

## Mentally Impaired

### Secondary Teacher Certification

ISIS major code: SP33

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 mentally impaired, certification code "SA,"

and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the Council for Exceptional Children. The certification tests covering this field are #56, "Mentally Impaired," and the minor area.

**Mentally Impaired Endorsement:** ..... 54-55 hours

One of:

- PSY 101 General Psychology (3)
- PSY 102 General Psychology (4)
- SPGN 251 Education of Exceptional Children ..... 3
- PHED 257 Physical Education for the Classroom Teacher ..... 2
- SPGN 271 Language Development and Speech Disorders in Special Populations ..... 2
- \*SPGN 390 Measurement and Diagnosis in Special Education ..... 3
- \*SPGN 395 Special Needs Persons: School, Family, and Community Interaction ..... 3
- \*SPGN 461 Classroom Management and Intervention Strategies for Handicapped Students ..... 3
- \*SPGN 481 Adaptive Technology in Special Education ..... 2
- \*SPGN 485 Curriculum, Programs and Services for Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 486 Transition and Related Field Experiences: Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 491 Seminar for Teachers of Special Education ..... 2
- \*SPMI 240 Preclinical: Mentally Impaired ..... 3
- \*SPMI 350 Introduction to Mental Retardation ..... 3
- \*SPMI 427 Educating the Elementary Student with Mild Retardation ..... 2
- \*SPMI 429 Curriculum Design and Education Programs for Students with Mild Retardation ..... 3
- \*SPLI 468 Education of Children with Learning Disabilities ..... 2
- \*SPMI 483 Education of Students with Moderate or Severe Retardation ..... 4
- \*EDUC 491 Student Teaching ..... 10

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coe/sped/ugrad/major/mi\\_ts.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coe/sped/ugrad/major/mi_ts.html).

\*Admission to the teacher education program required.

## Physically and Otherwise Health Impaired

### Elementary Teacher Certification

ISIS major code: SP34

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 endorsed in physically impaired, certification code "SC," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the Council for Exceptional Children. The certification tests covering this field are #83, "Elementary Education," and #58, "Physically and Otherwise Health Impaired."

### Physically and Otherwise Health Impaired

**Endorsement:** ..... 58-59 hours

One of:

- PSY 101 General Psychology (3)
- PSY 102 General Psychology (4)
- SPGN 251 Education of Exceptional Children ..... 3
- PHED 257 Physical Education for the Classroom Teacher ..... 2
- SPGN 271 Language Development and Speech Disorders in Special Populations ..... 2

- \*SPGN 390 Measurement and Diagnosis in Special Education ..... 3
- \*SPGN 395 Special Needs Persons: School, Family, and Community Interaction ..... 3
- \*SPGN 461 Classroom Management and Intervention Strategies for Handicapped Students ..... 3
- \*SPGN 481 Adaptive Technology in Special Education ..... 2
- \*SPGN 485 Curriculum, Programs and Services for Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 486 Transition and Related Field Experiences: Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 491 Seminar for Teachers of Special Education ..... 2
- SPPI 240 Preclinical Experiences—POHI ..... 3
- SPPI 310 Developmental Sciences for Teachers of the Physically and Health Impaired ..... 4
- SPMI 350 Introduction to Mental Retardation ..... 3
- \*SPPI 360 Pathology of Physical and Health Impairments ..... 3
- \*SPPI 412 Ancillary Services and Health Procedures for Teachers of Physically Impaired ..... 2
- \*SPLI 468 Education of Children with Learning Disabilities ..... 2
- \*SPPI 414 Educational Strategies for Teachers of the Physically Impaired ..... 4
- \*EDUC 491 Student Teaching ..... 10

\*Admission to the teacher education program required.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/pohi\\_te.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/pohi_te.html).

### Physically and Otherwise Health Impaired Secondary Teacher Certification

**ISIS major code: SP34**

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 physically impaired, certification code "SC," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the Council for Exceptional Children. The certification tests covering this field are #58, "Physically and Otherwise Health Impaired," and the minor area.

#### Physically and Otherwise Health Impaired

**Endorsement: ..... 58-59 hours**

One of:

- PSY 101 General Psychology (3)
- PSY 102 General Psychology (4)
- SPGN 251 Education of Exceptional Children ..... 3
- PHED 257 Physical Education for the Classroom Teacher ..... 2
- SPGN 271 Language Development and Speech Disorders in Special Populations ..... 2
- \*SPGN 390 Measurement and Diagnosis in Special Education ..... 3
- \*SPGN 395 Special Needs Persons: School, Family, and Community Interaction ..... 3
- \*SPGN 461 Classroom Management and Intervention Strategies for Handicapped Students ..... 3
- \*SPGN 481 Adaptive Technology in Special Education ..... 2
- \*SPGN 491 Seminar for Teachers of Special Education ..... 2
- SPPI 240 Preclinical Experiences—POHI ..... 3
- SPPI 310 Developmental Sciences for Teachers of the Physically and Health Impaired ..... 4

- SPMI 350 Introduction to Mental Retardation ..... 3
- \*SPPI 360 Pathology of Physical and Health Impairments ..... 3
- \*SPPI 412 Ancillary Services and Health Procedures for Teachers of Physically Impaired ..... 2
- \*SPPI 414 Educational Strategies for Teachers of the Physically Impaired ..... 4
- \*SPLI 468 Education of Children with Learning Disabilities ..... 2
- \*SPGN 485 Curriculum, Programs and Services for Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 486 Transition and Related Field Experiences: Adolescents and Young Adults with Special Needs ..... 2
- \*EDUC 491 Student Teaching ..... 10

\*Admission to the teacher education program required.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/pohi\\_ts.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/pohi_ts.html).

### Speech and Language Impaired Elementary Teacher Certification with K-12 Endorsement and Healthcare Track

**ISIS major code: SP35**

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 Elementary Provisional Certificate endorsed in speech/language impaired, certification code "SB." This program of studies meets all requirements of the Council for Exceptional Children and of the American Speech-Hearing-Language Association. The certification tests covering this field are #83, "Elementary Education," and #57, "Speech and Language Impaired."

The undergraduate program in speech-language pathology (speech and language impaired) consists of five semesters of speech-language pathology courses (approximately 37 credit hours). While it may be possible to complete all undergraduate requirements in four academic years (fall and winter semesters only), most students find it necessary to enroll during one or more spring/summer terms.

Major courses are entered in the second year or after a student has completed a minimum of 35 to 45 credit hours and has been admitted to the program. This assures that the student maintains continuity once major course work has begun. Although it may be possible to complete all undergraduate requirements in four academic years (fall and winter semesters only), most students find it necessary to enroll during one or more spring-summer terms. Students who transfer into the program later in their studies may be unable to complete all program and University requirements in four calendar years. By working closely with their academic adviser, students can be assured of completing the program in the least amount of time possible.

**Speech and Language Impaired Endorsement: ..... 44 hours**

- SPGN 251 Education of Exceptional Children ..... 3
- \*SPGN 390 Measurement and Diagnosis in Special Education ..... 3
- \*SPGN 481 Adaptive Technology in Special Education ..... 2
- SPSI 343 Clinical Practice in Speech-Language Pathology I ..... 2
- SPSI 344 Clinical Practice in Speech Pathology II ..... 2
- SPHI 392 Introduction to Audiology ..... 2
- SPHI 394 Aural Habilitation/Rehabilitation ..... 3
- SPSI 332 Acoustic Phonetics: Speech Science ..... 2
- SPSI 336 Physiologic Phonetics: Anatomy and Physiology ..... 3
- SPSI 334 Applied Phonetics ..... 2

SPSI 335 Communication Disorders ..... 3  
 SPSI 337 Language Acquisition ..... 3  
 SPSI 340 Management of Phonological Disorders ..... 3  
 SPSI 341 Directed Observation in Speech Pathology ..... 2  
 SPSI 342 Management of Language Disorders ..... 3  
 SPSI 452 Voice ..... 3  
 SPSI 454 Stuttering ..... 3

The courses listed below are required for the master's degree and eligibility for recommendation for certification:

**SPECIALTY STUDIES**

SPSI 508 Multicultural/Multilingual Communication  
 Development and Disorders ..... 3  
 SPSI 555 Neuroanatomy and Physiology for the Speech  
 Pathologist ..... 2  
 SPSI 568 Diagnostic Methods in Speech, Language, and  
 Hearing ..... 3  
 SPSI 578 Audiometric Testing ..... 3  
 SPSI 607 Colloquium ..... 2  
 SPSI 612 Motor Speech Disorders ..... 2  
 SPSI 614 Aphasia ..... 3  
 SPSI 616 Experiments in Speech-Language Pathology ..... 3  
 SPSI 620 Consulting and Interviewing in Speech  
 Pathology ..... 3  
 SPSI 622 Augmentative Communication ..... 2  
 SPSI 624 Neurogenic Communicative Disorders ..... 2

**Credit hours in specialty studies: ..... 28**

**PROFESSIONAL STUDIES**

SPSI 687 Clinical Internship in Speech Pathology ..... 2  
 SPSI 689 Public School Internship in Speech Pathology ..... 4  
 SPSI 694 Professional Issues in Speech-Language  
 Pathology ..... 2

**Credit hours in professional studies: ..... 8**

**Total credit hours at the graduate level: ..... 36**

*\*Admission to the teacher education program required.*

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coe/sped/ugrad/major/sli\\_te.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coe/sped/ugrad/major/sli_te.html).

**Speech and Language Impaired**

Secondary Teacher Certification with K-12 Endorsement and Healthcare Track

**ISIS major code: SP35**

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 speech/language impaired, certification code "SB." This program of studies meets all requirements of the Council for Exceptional Children and of the American Speech-Hearing-Language Association. The certification tests covering this field are #57, "Speech and Language Impaired," and the minor area.

The undergraduate program in speech-language pathology (speech and language impaired) consists of five semesters of speech-language pathology courses (approximately 37 credit hours). While it may be possible to complete all undergraduate requirements in four academic years (fall and winter semesters only), most students find it necessary to enroll during one or more spring/summer terms.

Major courses are entered in the second year or after a student has completed a minimum of 35 to 45 credit hours and has been admitted to the program. This assures that the student maintains continuity once major

course work has begun. Although it may be possible to complete all undergraduate requirements in four academic years (fall and winter semesters only), most students find it necessary to enroll during one or more spring-summer terms. Students who transfer into the program later in their studies may be unable to complete all program and University requirements in four calendar years. By working closely with their academic adviser, students can be assured of completing the program in the least amount of time possible.

**Speech and Language Impaired Endorsement: ..... 44 hours**

SPGN 251 Education of Exceptional Children ..... 3  
 \*SPGN 390 Measurement and Diagnosis in Special  
 Education ..... 3  
 \*SPGN 481 Adaptive Technology in Special Education ..... 2  
 SPSI 343 Clinical Practice in Speech-Language  
 Pathology I ..... 2  
 SPSI 344 Clinical Practice in Speech Pathology II ..... 2  
 SPHI 392 Introduction to Audiology ..... 2  
 SPHI 394 Aural Habilitation/Rehabilitation ..... 3  
 SPSI 332 Acoustic Phonetics: Speech Science ..... 2  
 SPSI 336 Physiologic Phonetics: Anatomy and  
 Physiology ..... 3  
 SPSI 334 Applied Phonetics ..... 2  
 SPSI 335 Communication Disorders ..... 3  
 SPSI 337 Language Acquisition ..... 3  
 SPSI 340 Management of Phonological Disorders ..... 3  
 SPSI 341 Directed Observation in Speech Pathology ..... 2  
 SPSI 342 Management of Language Disorders ..... 3  
 SPSI 452 Voice ..... 3  
 SPSI 454 Stuttering ..... 3

The courses listed below are required for the master's degree and eligibility for recommendation for certification:

**SPECIALTY STUDIES**

SPSI 508 Multicultural/Multilingual Communication  
 Development and Disorders ..... 3  
 SPSI 555 Neuroanatomy and Physiology for the Speech  
 Pathologist ..... 2  
 SPSI 568 Diagnostic Methods in Speech, Language, and  
 Hearing ..... 3  
 SPSI 578 Audiometric Testing ..... 3  
 SPSI 607 Colloquium ..... 2  
 SPSI 612 Motor Speech Disorders ..... 2  
 SPSI 614 Aphasia ..... 3  
 SPSI 616 Experiments in Speech-Language Pathology ..... 3  
 SPSI 620 Consulting and Interviewing in Speech  
 Pathology ..... 3  
 SPSI 622 Augmentative Communication ..... 2  
 SPSI 624 Neurogenic Communicative Disorders ..... 2

**Credit hours in specialty studies: ..... 28**

**PROFESSIONAL STUDIES**

SPSI 687 Clinical Internship in Speech Pathology ..... 2  
 SPSI 689 Public School Internship in Speech Pathology ..... 4  
 SPSI 694 Professional Issues in Speech-Language  
 Pathology ..... 2

**Credit hours in professional studies: ..... 8**

**Total credit hours at the graduate level: ..... 36**

*\*Admission to the teacher education program required.*

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coe/sped/ugrad/major/sli\\_ts.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coe/sped/ugrad/major/sli_ts.html).



## Speech and Language Impaired

Healthcare Track (no teacher certification)

ISIS major code: SP05

The undergraduate program in speech-language pathology (speech and language impaired) consists of five semesters of speech-language pathology courses (approximately 37 credit hours). While it may be possible to complete all undergraduate requirements in four academic years (fall and winter semesters only), most students find it necessary to enroll during one or more spring/summer terms.

Major courses are entered in the second year or after a student has completed a minimum of 35 to 45 credit hours and has been admitted to the program. Program admission first requires admission to the College of Education. This assures that the student maintains continuity once major course work has begun. Although it may be possible to complete all undergraduate requirements in four academic years (fall and winter semesters only), most students find it necessary to enroll during one or more spring-summer terms. Students who transfer into the program later in their studies may be unable to complete all program and University requirements in four calendar years. By working closely with their academic adviser, students can be assured of completing the program in the least amount of time possible.

### Speech and Language Impaired Endorsement: ..... 44 hours

SPGN 251 Education of Exceptional Children .....	3
*SPGN 390 Measurement and Diagnosis in Special Education .....	3
*SPGN 481 Adaptive Technology in Special Education .....	2
SPSI 343 Clinical Practice in Speech-Language Pathology I .....	2
SPSI 344 Clinical Practice in Speech Pathology II .....	2
SPHI 392 Introduction to Audiology .....	2
SPHI 394 Aural Habilitation/Rehabilitation .....	3
SPSI 332 Acoustic Phonetics: Speech Science .....	2
SPSI 336 Physiologic Phonetics: Anatomy and Physiology .....	3
SPSI 334 Applied Phonetics .....	2
SPSI 335 Communication Disorders .....	3
SPSI 337 Language Acquisition .....	3
SPSI 340 Management of Phonological Disorders .....	3
SPSI 341 Directed Observation in Speech Pathology .....	2
SPSI 342 Management of Language Disorders .....	3
SPSI 452 Voice .....	3
SPSI 454 Stuttering .....	3

The courses listed below are required for the master's degree:

### SPECIALTY STUDIES

SPSI 508 Multicultural/Multilingual Communication Development and Disorders .....	3
SPSI 555 Neuroanatomy and Physiology for the Speech Pathologist .....	2
SPSI 568 Diagnostic Methods in Speech, Language, and Hearing .....	3
SPSI 578 Audiometric Testing .....	3
SPSI 607 Colloquium .....	2
SPSI 612 Motor Speech Disorders .....	2
SPSI 614 Aphasia .....	3
SPSI 616 Experiments in Speech-Language Pathology .....	3
SPSI 620 Consulting and Interviewing in Speech Pathology .....	3
SPSI 622 Augmentative Communication .....	2
SPSI 624 Neurogenic Communicative Disorders .....	2

Credit hours in specialty studies: ..... 28

### PROFESSIONAL STUDIES

SPSI 687 Clinical Internship in Speech Pathology .....	2
SPSI 689 Public School Internship in Speech Pathology .....	4
SPSI 694 Professional Issues in Speech-Language Pathology .....	2

Credit hours in professional studies: ..... 8

### ELECTIVES

Two credit hours (minimum) in a 500-level or higher course is required for non-teacher training students.

Total credit hours at the graduate level: ..... 38

\*Admission to the College of Education required.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/sli\\_clin.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/sli_clin.html).

## Visually Impaired

Elementary Teacher Certification

ISIS major code: SP36

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 endorsed in visually impaired, certification code "SK," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the Council for Exceptional Children. The certification tests covering this field are #83, "Elementary Education," and #61, "Visually Impaired."

Visually Impaired Endorsement: ..... 44 hours

One of:

PSY 101 General Psychology (3)	
PSY 102 General Psychology (4)	
SPGN 251 Education of Exceptional Children .....	3
PHED 257 Physical Education for the Classroom Teacher .....	2
SPGN 271 Language Development and Speech Disorders in Special Populations .....	2
*SPGN 390 Measurement and Diagnosis in Special Education .....	3
*SPGN 395 Special Needs Persons: School, Family, and Community Interaction .....	3
*SPGN 461 Classroom Management and Intervention Strategies for Handicapped Students .....	3
*SPGN 481 Adaptive Technology in Special Education .....	2
*SPGN 485 Curriculum, Programs and Services for Adolescents and Young Adults with Special Needs .....	2
*SPGN 486 Transition and Related Field Experiences: Adolescents and Young Adults with Special Needs .....	2
*SPGN 491 Seminar for Teachers of Special Education .....	2
SPVI 365 Braille .....	3
SPVI 366 The Eye and Vision—Anatomy and Physiology .....	2
SPVI 368 Mobility Training for the Visually Impaired .....	2
SPVI 369 Community Considerations for the Visually Impaired .....	3
*SPVI 464 Methods of Teaching the Blind .....	3
*SPVI 465 Braille II: Nemeth Code .....	3
*SPVI 467 Education of Children with Impaired Vision .....	2
*SPVI 469 Electronic Communication for the Visually Impaired .....	3
*EDUC 491 Student Teaching .....	10

\*Admission to the teacher education program required.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/vi\\_te.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/vi_te.html).

## Visually Impaired

### Secondary Teacher Certification

ISIS major code: SP36

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 visually impaired, certification code "SK," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the Council for Exceptional Children. The certification tests covering this field are #61, "Visually Impaired," and the minor area.

**Visually Impaired Endorsement: ..... 44 hours**

One of:

- PSY 101 General Psychology (3)
- PSY 102 General Psychology (4)
- SPGN 251 Education of Exceptional Children ..... 3
- PHED 257 Physical Education for the Classroom Teacher ..... 2
- SPGN 271 Language Development and Speech Disorders in Special Populations ..... 2
- \*SPGN 390 Measurement and Diagnosis in Special Education ..... 3
- \*SPGN 395 Special Needs Persons: School, Family, and Community Interaction ..... 3
- \*SPGN 461 Classroom Management and Intervention Strategies for Handicapped Students ..... 3
- \*SPGN 481 Adaptive Technology in Special Education ..... 2
- \*SPGN 491 Seminar for Teachers of Special Education ..... 2
- SPVI 365 Braille ..... 3
- SPVI 366 The Eye and Vision—Anatomy and Physiology ..... 2
- SPVI 368 Mobility Training for the Visually Impaired ..... 2
- SPVI 369 Community Considerations for the Visually Impaired ..... 3
- \*SPVI 464 Methods of Teaching the Blind ..... 3
- \*SPVI 465 Braille II: Nemeth Code ..... 3
- \*SPVI 467 Education of Children with Impaired Vision ..... 2
- \*SPVI 469 Electronic Communication for the Visually Impaired ..... 3
- \*SPGN 485 Curriculum, Programs and Services for Adolescents and Young Adults with Special Needs ..... 2
- \*SPGN 486 Transition and Related Field Experiences: Adolescents and Young Adults with Special Needs ..... 2
- \*EDUC 491 Student Teaching ..... 10

\*Admission to the teacher education program required.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/vi\\_ts.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/sped/ugrad/major/vi_ts.html).

## "Planned Program" Courses for Special Education-Elementary Programs

ISIS minor code: TE34

- One of: ..... 3
- ESCI 302 Elementary School Science (3)
- #ESCI 303 Science for the Elementary Teacher (satisfies general education requirement II.2 or II.3) (3)
- CURR 304 Curriculum and Methods: Elementary ..... 3
- RDNG 314 Teaching Reading in the Elementary School ..... 6
- EDPS 325 Life Span Human Growth and Development ..... 4
- SOFD 328 Schools in a Multicultural Society ..... 3

- EDMD 345 Media for the Classroom Teacher ..... 1
- GEOG 348 Teaching Social Studies in Elementary Schools ..... 3
- MATH 381 The Teaching of Mathematics, K-6 ..... 3
- Four hours from: ..... 4

- LITR 207 Introduction to Children's Literature (3)
- HLED 210 Standard American Red Cross First Aid (2)
- HLED 320 Health Education in the Elementary Grades (2)
- FA 101 Introduction to Art (3)
- FA 300 Art Integration for the Elementary Teacher (4)
- #CTAR 222 Drama and Play in Human Experience (satisfies general education requirement IV.4) (3)
- MUSC 104 Elements of Music (2)
- MUSC 224 Recreational Music (2)
- MUSC 103 Introduction to Music Therapy (2)

**Total: ..... 30 hours**

## Emotionally Impaired

**SPEI 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: Department permission.

**SPEI 240 Introductory Clinical Experiences in Emotional Impairment 3 hrs**

Students will be provided with an opportunity to work with impaired students in an effort to help them understand these youngsters, and evaluate their own qualifications for working with this type of youngster. Evaluations of the student's performance will be obtained from a supervising person. Majors in the area of emotional impairment will complete 150 clock hours of experience with youngsters prior to student teaching with emotionally impaired students. Twenty-five (25) of these hours will be completed during this course. An overview and hours introduction to the field of teaching emotionally impaired children and youth including theory, service delivery systems, and classroom practices will also be presented.

**SPEI 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: Department permission.

**SPEI 301 Emotionally Impaired Children and Adolescents 4 hrs**

This course provides an explanation of conceptual models which explain disturbed behavior of children and adolescents. Definitive diagnostic categories will also be explained in context of their use in a variety of educational settings by teachers of emotionally impaired children and adolescents.

Prereq: PSY 360; SPEI 240; SPGN 251 is advised. Not open to students on academic probation.

**SPEI 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: Department permission.

**SPEI 401 Programming, Methods, and Curriculum for the Elementary Emotionally Impaired Child 4 hrs**

Teaching methods, techniques, and materials for educating elementary age emotionally impaired children will be presented. In addition, types of programs serving elementary age disturbed youngsters as well as the Individualized Education Program, federal, and state rules governing the programs will be discussed. For elementary majors only.

Prereq: SPEI 301 and SPGN 461; admission to the teacher education program.

**SPEI 449 Seminar: Current Topics in Emotional Impairment****2 hrs**

An examination and discussion of issues and topics of current concern and pertinent to working with emotionally impaired children and adolescents.  
*Prereq: SPEI 301; admission to the teacher education program.*

**SPEI 477/478/479 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPEI 488 Programming, Methods, and Curriculum for Secondary Emotionally Impaired Youth****4 hrs**

Teaching methods, techniques, and materials for educating secondary age emotionally impaired youth. Types of programs serving adolescent age disturbed youth as well as the Individualized Education Program, federal, and state rules governing the programs will be discussed. For secondary majors only.

*Prereq: SPEI 301 and SPGN 461; admission to the teacher education program. SPGN 485 (may be taken concurrently).*

**General Special Education Courses****SPGN 177/178/179 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPGN 251 Education of Exceptional Children****3 hrs**

An introductory survey course providing 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 including the gifted, learning disabled, mentally, emotionally, speech and language, hearing, visually, physically, and health impaired are addressed.

**SPGN 271 Language Development and Speech Disorders in Special Populations****2 hrs**

Understanding the dynamics of language development and usage from birth through the school years. The effects of disability on language development and processes. Lecture and observation. *Required of all special education majors except speech and language impaired and hearing impaired, who must take SPSI 337 Language Acquisition.*

**SPGN 277/278/279 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPGN 377/378/379 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPGN 387 Cooperative Education****3 hrs**

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.

*Prereq: Nine credit hours in concentration, approval by Cooperative Education Office, and department permission.*

**SPGN 390 Measurement and Diagnosis in Special Education****3 hrs**

This course is required for all students majoring in special education. Students will learn about a wide variety of standardized and criterion-referenced tests and about their role in assessing intellectual capacity,

academic achievement, socioemotional skills, adaptive behavior, and auditory and visual limitations of students with handicaps. The course will be taught in a lecture format. Students will look at and become familiar with a wide variety of commonly used tests. Cultural reactions, test bias, and limitations will be explored.

*Prereq: SPGN 251; admission to the teacher education program.*

**SPGN 395 Special Needs Persons: School, Family, and Community Interaction****3 hrs**

Designed to provide students with knowledge of the reciprocal influences of special needs persons, birth through 26 years of age, their families, and community institutions: legal, medical, social welfare, and educational. Students will develop skills required to identify problem areas for the special needs person and their families when interfacing with community institutions and to plan and implement effective intervention for positive growth.

*Prereq: SPGN 251; admission to the teacher education program.*

**SPGN 461 Classroom Management and Intervention Strategies for Handicapped Students****3 hrs**

An understanding of selected approaches to effective classroom management for special education students in varied settings will be developed. Behavioral theories will provide the foundation for building effective strategies and approaches for classroom management. The roles and responsibilities of students, parents, teachers, and other school personnel will be identified.

*Prereq: SPGN 251; admission to the teacher education program.*

**SPGN 477/478/479 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPGN 481 Adaptive Technology in Special Education****2 hrs**

This course is intended to assist the student in identifying and implementing adaptive technology in the special education curriculum. The course explores the latest technology available in adapting computers and other devices to assist the special child. Major areas of interest include voice input/output, switching devices, alternative keyboards for the computer, (touchpads, membranes), adaptive devices for the visually impaired (braille and voice output), and other alternative devices. Students are encouraged to look at a broad range of uses for each technological instrument rather than isolate a given advancement for the use of a designated or single disability.

*Prereq: SPGN 251; a computer course; admission to the teacher education program.*

**SPGN 485 Curriculum, Programs and Services for Adolescents and Young Adults with Special Needs****2 hrs**

Students will focus on secondary and post-secondary special education curricula, programs and services. Unique elements of the above will be addressed and include intellectual, social, emotional, physical, personal, prevocational and vocational needs of special learners.

*Prereq: Admission to the teacher education program.*

**SPGN 486 Transition and Related Field Experiences:****Adolescents and Young Adults with Special Needs****2 hrs**

Application of transition fundamentals appropriate to the student's program of study. Students will have an opportunity to observe and work with adolescents and young adults in the disability area for which they will be endorsed. Students complete a transition plan and IWRP.

*Prereq: Admission to the teacher education program.*

**SPGN 487 Cooperative Education****3 hrs**

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.

*Prereq: Nine credit hours in concentration, approval by Cooperative Education Office, and department permission.*

**SPGN 491 Seminar for Teachers of Special Education 2 hrs**

This course provides a transition from the academic environment to the professional setting. Competencies and issues necessary for teacher preparation and pertinent to the student's internship are presented. Topics for discussion include: a review of the history, nature, and structure of the Michigan Public School system and the delivery of total services to all students including the special education child; state and federal law including due process, data privacy requirements, teacher tenure, and professional liability; professional ethics, organizations, unions, and the influences on education; supervision of and interaction with teaching aids, paraprofessionals, volunteers, and other school personnel including the regular classroom teacher. Concurrent with special student teaching.

*Prereq: Admission to the teacher education program.*

**SPGN 497/498/499 Independent Study 1/2/3 hrs**

Directed study of a problem or group of problems in special education.

*Prereq: Department permission.*

### Hearing Impaired

**SPHI 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPHI 228 Education of Hearing-Impaired Students 3 hrs**

Designed to cover the history of the education of persons with hearing impairments, and to provide an overview of educational programming, psychological adjustment, parent counseling, communication methods, and various philosophical approaches to education of persons with hearing impairments.

*Pre- or coreq: SPGN 251*

**SPHI 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPHI 375 Fundamentals of Sign Communication 2 hrs**

A study of the rationale for use of manual communication systems with persons with hearing impairments, including American Sign Language, manually-coded English Sign systems, and fingerspelling. Beginning-level skills in manual communication will be developed. Observation of use of sign language in school programs will be required.

**SPHI 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPHI 387 Introductory Practicum with Hearing-Impaired Students 1 hr**

Thirty clock hours of supervised observation and work with students with hearing impairments.

*Prereq: SPHI 228; admission to the teacher education program.*

**SPHI 391 Language for Hearing-Impaired Students 4 hrs**

Language development of children with prelingual hearing impairments. Survey of various methods of teaching language, including natural and structured approaches.

*Prereq: SPHI 228; admission to the teacher education program.*

**SPHI 392 Introduction to Audiology 2 hrs**

Medical and surgical treatment of pathologies of the ear. Hearing screening tests, basic audiometric testing procedures, and audiometric interpretation.

*Prereq: SPSI 332 and SPSI 336.*

**SPHI 394 Aural Habilitation/Rehabilitation 3 hrs**

A study of the avenues of receptive language available to persons with impaired hearing; the development of auditory learning, auditory training, and the training of speechreading. Includes the understanding of group and individual hearing aids, other assistive technology, and surgical implants.

*Prereq: SPHI 392.*

**SPHI 435 Phonetics and Hearing Impairment 2 hrs**

Articulatory and acoustic phonetics. Speech reception of persons with hearing impairments: auditory cues available relative to the individual's hearing loss; visual, tactile, and kinesthetic correlates. Characteristics of speech production of speakers with impaired hearing. Phonetic transcription in International Phonetic Alphabet, Northampton, and Thorndike orthographic systems. Phonological level speech assessment.

*Prereq: SPSI 332 and SPSI 336; admission to the teacher education program.*

**SPHI 436 Speech Methods for Hearing-Impaired Persons 2 hrs**

Methods of assessment and intervention in the development of intelligible connected speech in persons with hearing impairments.

*Prereq: SPHI 435; admission to the teacher education program.*

**SPHI 437 Adaptive Curriculum for Hearing-Impaired Students 3 hrs**

Principles and methods of teaching academic subjects to students with hearing impairments. Classroom procedures and materials especially designed for students with hearing impairments, as well as the adaptation of regular curricula and materials will be presented.

*Prereq: SPHI 391; admission to the teacher education program.*

**SPHI 477/478/479 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPHI 487 Speech Practicum with Hearing-Impaired Students 1 hr**

Thirty (30) clock hours of supervised observation and speech work with persons with hearing impairments.

*Prereq: SPHI 436; admission to the teacher education program.*

### Learning Disabled

**SPLI 468 Education of Children with Learning Disabilities 2 hrs**

A study of educational and psychological problems of children with neurological and perceptual defects. Theories as they relate to the central nervous system, teaching techniques, classroom management, case studies, research, and teacher-child and parent relationships.

*Prereq: SPGN 251; admission to the teacher education program; senior standing.*

**SPLI 477/478/479 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

### Mentally Impaired

**SPMI 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*



**SPMI 240 Preclinical: Mentally Impaired 3 hrs**

The purposes of the preclinical experiences in the area of the mentally impaired are twofold. First, it provides the student with opportunities to observe a variety of programs and work with children or youth displaying a variety of types and/or degrees of learning, emotional, and physical difficulties. (For a more detailed description of this component, please review the Handbook for Majors in the Mentally Impaired.) Secondly, students will meet together to discuss observations, insights, and concerns related to their experiences. Educational programs for students with mental retardation will be discussed and site visits will be made.

**SPMI 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPMI 350 Introduction to Mental Retardation 3 hrs**

This lecture course introduces students to the field of mental retardation: its history, terminology, causes, health, medical, and sensorineural components. The range of philosophies influencing educational practices and life management programs are also discussed.

*Prereq: SPGN 251, PSY 101.*

**SPMI 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPMI 427 Educating the Elementary Student with Mild Retardation 2 hrs**

The development of programs, materials, and instructional techniques appropriate to the needs of the educable mentally retarded child from birth to age 12.

*Prereq: SPMI 240, SPMI 350; admission to the teacher education program.*

**SPMI 429 Curriculum Design and Education Programs for Students with Mild Retardation 3 hrs**

Emphasis will be given to the assessment of basic learning skills and academic levels of functioning based on the use and results of formal tests, criterion referenced tests, and formal data gathering instruments. Additional emphasis will be placed on the development of appropriate educational program goals. The development of appropriate lessons using selected materials, methods, and techniques to meet these goals. Selected behavioral management approaches will be included as they relate to overall educational goals and program development.

*Prereq: SPMI 427, SPMI 483 (prerequisite or corequisite), and admission to the teacher education program.*

**SPMI 477/478/479 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPMI 483 Education of Students with Moderate or Severe Retardation 4 hrs**

This course focuses on philosophy, curriculum, assessment, teaching methods, and classroom management techniques for students identified as TMI, SMI, or SXI. A three-hour-per-week field placement in one of the above classrooms is an integral part of the course.

*Prereq: SPMI 240, SPMI 350, SPGN 461; admission to the teacher education program.*

**Physically or Otherwise Health Impaired****SPPI 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPPI 240 Preclinical Experiences—POHI 3 hrs**

This introductory course provides exposure to and experience with the physically or otherwise health impaired. Students will be encouraged to evaluate and examine their motivation for becoming a teacher of the physically and health impaired and be introduced to all aspects of the teaching profession. Students will participate in a field experience, being exposed to all age and grade levels. They will have an opportunity to visit a variety of settings that employ teachers of the physically and health impaired and be exposed to the ancillary services found in most POHI delivery models.

**SPPI 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPPI 310 Developmental Sciences for Teachers of the Physically and Health Impaired 4 hrs**

A study of developmental human anatomy and physiology with emphasis upon the impact of the nervous system and its integration, function, and control of the other body systems and their functions. The relationship of normal development to disability is explored and infused throughout the course. Laboratory periods are required where students can investigate the principles covered in lecture using anatomical models and specimens.

*Prereq: SPGN 251, SPPI 240, and BIOL 105.*

**SPPI 360 Pathology of Physical and Health Impairments 3 hrs**

A comprehensive study of orthopedic, neurologic, health, and other handicapping conditions common to children and youth comprising the population found in educational settings serviced by the POHI teacher. Medical terminology and procedures are also introduced. Laboratory assignments are included in this course.

*Prereq: Admission to the teacher education program, SPPI 310.*

**SPPI 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPPI 412 Ancillary Services and Health Procedures for Teachers of Physically Impaired 2 hrs**

Information concerning the individual disciplines that provide ancillary services to physically and health impaired students. Skills involving the use of adaptive equipment, manipulation of orthotics, and implementation of health intervention and maintenance procedures will be learned. A field placement is also required.

*Prereq: Admission to the teacher education program. SPPI 310 and SPPI 360 or instructor permission.*

**SPPI 414 Educational Strategies for Teachers of the Physically Impaired 4 hrs**

This course encompasses information and develops skills needed to develop, implement, and evaluate curriculum and methods for the preschool and elementary physically otherwise health impaired student. All aspects of cognitive, affective, and psychomotor education are explored. Emphasis is placed upon individualized instruction and programming, ad-

aptations and modification of instructional methods and materials, remediation, communication, problem-solving, decision-making, personal adjustment, prevocational education, and leisure activities. A directed classroom laboratory is required.

*Prereq: SPPI 310, SPPI 360, and admission to the teacher education program.*

**SPPI 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

### Speech and Language Impaired

**SPSI 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPSI 277/278/279 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPSI 332 Acoustic Phonetics: Speech Science** 2 hrs

Basic principles of acoustic science and speech perception. Consideration of speech as an acoustical phenomenon and the analysis of speech patterns through measurements of sound and spectral analysis.

*Coreq: SPSI 336.*

**SPSI 334 Applied Phonetics** 2 hrs

An introduction to the use of the International Phonetic Alphabet Classification and production of English speech sounds. Phonemic transcription, including some analysis of deviant and variant speech. Lab experiences weekly.

*Coreq: SPSI 335.*

**SPSI 335 Communication Disorders** 3 hrs

A study of the major communication disorders as deviations from normal physical and social behavior. Etiology and symptomatology.

*Coreq: SPSI 334.*

**SPSI 336 Physiologic Phonetics: Anatomy and Physiology** 3 hrs

Anatomy and physiology of normal speech production, consideration of speech as a motor behavior, physiological investigation of speech and voice.

*Coreq: SPSI 332.*

**SPSI 337 Language Acquisition** 3 hrs

The development of speech, language, hearing, and communication from birth. The interrelationship between cognitive development and language acquisition and usage. Developmental processes and milestones in phonology, morphology, syntax, and semantics and pragmatics as a basis for understanding the effects of speech, language, and hearing problems of the individual.

*Coreq: SPSI 332, SPSI 336, and SPSI 341.*

**SPSI 340 Management of Phonological Disorders** 3 hrs

Diagnosis and treatment of functional articulation problems, and phonological disorders.

*Prereq: SPSI 335 and SPSI 334. Coreq: SPSI 342.*

**SPSI 341 Directed Observation in Speech Pathology** 2 hrs

Observation and evaluation of the methods and materials used in treating speech and hearing disorders. Opportunity for supervised clinical

practice. SLI majors must take this course concurrently with SPSI 337, SPSI 332, and SPSI 336.

**SPSI 342 Management of Language Disorders** 3 hrs

Diagnosis and treatment of language disorders that result from developmental lag, physical anomalies, and cultural differences. Focuses on pre-school, elementary, and secondary school-aged individuals.

*Prereq: SPSI 334, SPSI 337, SPSI 332, SPSI 336, and SPSI 335. Coreq: SPSI 340*

**SPSI 343 Clinical Practice in Speech-Language Pathology I** 2 hrs

Supervised clinical practice with children and adults in individual and group settings. Developmental articulation, language disorders and dialect.

*Prereq: SPSI 340, SPSI 342, department permission.*

**SPSI 344 Clinical Practice in Speech Pathology II** 2 hrs

A minimum of 60 clock hours of supervised clinical experience with speech disorders associated with organic impairment. Problems of children and adults with cerebral palsy, cleft palate, hearing losses, mental impairments, and language.

*Prereq: SPSI 343 and department permission.*

**SPSI 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPSI 452 Voice** 3 hrs

A study of the etiology, diagnosis, and treatment of functional and organic voice disorders, including defects of loudness, pitch, and quality.

*Prereq: SPSI 340, SPSI 342.*

**SPSI 454 Stuttering** 3 hrs

Causation, symptomatology, and remedial procedures of stuttering; specific therapy procedures in the clinic, the school, and the home.

*Prereq: SPSI 340, SPSI 342.*

**SPSI 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

### Visually Impaired

**SPVI 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPVI 277/278/279 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**SPVI 365 Braille** 3 hrs

Developing proficiency in reading and writing error-free braille and the reading of music braille.

*Pre or coreq: SPGN 251.*

**SPVI 366 The Eye and Vision—Anatomy and Physiology** 2 hrs

Anatomy, physiology, and pathology of the organs of vision, refractive errors, and principles of correction. Educational implications of visual

handicaps in children rather than strictly medical achievements. Interpretation of medical reports to parents, students, and other teachers.

*Prereq:* SPGN 251.

**SPVI 368 Mobility Training for the Visually Impaired** 2 hrs

Sensory training, study, and development of cane techniques as they apply to mobility for the blind. Introduction to leader dog program. Practicum included. Offered on the junior, senior, and graduate level.

*Prereq:* Junior level.

**SPVI 369 Community Considerations for the Visually Impaired** 3 hrs

The lifestyle and needs of persons with visual impairments; 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 the visually impaired.

*Prereq:* SPGN 251.

**SPVI 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq:* Department permission.

**SPVI 464 Methods of Teaching the Blind** 3 hrs

A study of the various methods used in educating and assessing blind children. The adaptation of these methods to the teaching of school subjects to blind students. Further emphasis on Nemeth Code, Cranmer abacus and other teaching materials and devices.

*Prereq:* SPGN 251; admission to the teacher education program.

**SPVI 465 Braille II: Nemeth Code** 3 hrs

Transcription skills with Nemeth Code.

*Prereq:* SPVI 365; admission to the teacher education program.

**SPVI 467 Education of Children with Impaired Vision** 2 hrs

Organization and administration of various plans for educating partially seeing children. Adaptation of the various teaching methods and materials to partially seeing children. A comparison of various vision testing methods and devices. Visits to classes for visually impaired children.

*Prereq:* SPGN 251; admission to the teacher education program.

**SPVI 469 Electronic Communication for the Visually Impaired** 3 hrs

This course is designed to expose the student to a variety of tools available for use by visually impaired persons. The tools or devices covered include those designed to provide assistance in travel, reading, braille, low vision (such as the Optacon, Kurzweil Reading Machine, Versabrailler, Stereo Toner, and Computer Braille Programs). Proficiency of five words per minute on the Optacon is expected.

*Prereq:* Admission to the teacher education program.

**SPVI 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq:* Department permission.

## Teacher Education

Web site: [www.emich.edu/public/teach\\_ed/ted.html](http://www.emich.edu/public/teach_ed/ted.html)

**Alane Starko**

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**Professors:** Leah Adams, Irene Allen, Anne Bednar, Mary Bigler, John Blair, Barbara Diamond, Trevor Gardner, Thomas Gwaltney, Sarah Huyvaert, Louise Jernigan, Georgia Langer, Rebecca Martusewicz, Maureen McCormack, Margaret Moore-Hart, Karen Paciorek, Marv Pasch, Jeanne Pietig, Patricia Pokay, Valerie Polakow, Quirico Samonte, Alane Starko, Judith Williston

**Associate Professors:** Patricia Williams-Boyd, Kathleen Beauvais, Peggy Daisey, Jane Gordon, Elizabeth Johnson, Sylvia Jones, Cristina Jose-Kampfner, Martha Kinney-Sedgwick, Olga Nelson

**Assistant Professors:** Martha Baiyee, Betty Barber, Mike Charles, Lisa Frankes, Caroline Gould, Sue Grossman, Linda Lewis-White, Shawn Quilter, Randy Rush, Kaia Skaggs

The Teacher Education Department provides undergraduate courses in orientation to the University, psychological and social foundations of education, methods, reading, and educational media, among others. These courses, along with courses in other University departments, compose the programs for preparing elementary, secondary, and K-12 teachers.

### Curricula

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.

#### Prospective elementary teachers

Go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/ted/ugrad/major/el\\_t.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/ted/ugrad/major/el_t.html) for the general program of studies and other information for prospective elementary teachers. Each program includes a major and a minor (or three minors). Many majors and minors are offered through colleges other than the College of Education. Go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/coe/ugrad/elmajors.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/coe/ugrad/elmajors.html) for a list of approved majors. Go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/coe/ugrad/elminors.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/coe/ugrad/elminors.html) for a list of approved minors.

The Teacher Education Department administers these majors for prospective elementary teachers: Elementary Science Group; Language Arts Group; Social Science Group Major for Elementary Education.

The Teacher Education Department administers these minors for prospective elementary teachers: Arts Group; Early Childhood Education; Elementary Science Group; Language Arts Group; Social Studies Group (Elementary) and Structure of the Disciplines.

#### Prospective elementary teachers with early childhood endorsement

Go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/ted/ugrad/major/ece\\_t.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/ted/ugrad/major/ece_t.html) for the program of studies and other information for prospective elementary teachers with early childhood endorsement. See also information for prospective elementary teachers above.

#### Prospective secondary and K-12 teachers

Programs of studies and other information for prospective secondary and K-12 teachers are found in regular department listings. Go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/coe/ugrad/secmajors.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/coe/ugrad/secmajors.html) for a list of approved majors. Go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/coe/ugrad/secminors.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/coe/ugrad/secminors.html) for a list of approved minors.

**Advising**

Advising Coordinator for Elementary Certification: Olga Nelson

Advising is required for all students so that each can pursue both personal and professional goals in a timely and satisfying manner.

Elementary education and early childhood education students are required to attend open advising session before being assigned an adviser. Students should visit the Teacher Education office in 313 Porter to pick up a copy of the open 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/junior high and secondary school teaching, common learnings, reading, social foundations, and educational psychology (development and personality, research and measurement, or educational technology concentrations). For descriptions of graduate courses and programs, consult the graduate catalog.

**Elementary Science Group Major****Elementary Teacher Certification**

**ISIS major code: TE33**

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code "DX." The certification test covering this field is #16, "Science."

**Teaching Major ..... 36 hours**

One of: (satisfies general education requirement II.2 or II.3) ..... 3 or 4

#PSY 101 General Psychology (3)

#PSY 102 General Psychology (4)

#PHY 100 Science for Elementary Teachers (satisfies general education requirement II.1 or II.3) ..... 3

All of: ..... 9

#CHEM 101 Science for Elementary Teachers (satisfies general education requirement II.3) (3)

GESC 202 Science for Elementary Teachers (3)

#ESCI 303 Science for the Elementary Teacher (satisfies general education requirement II.2 or II.3) (3)

If PSY 101 is in the program, choose 21 credits from the entire list of courses below. If PSY 102 is in the program, choose 20 credits from the entire list of courses below. The selections of electives must include at least six hours of courses at the 300 level or higher. (ESCI 303 is the other three hours for the minor requirement of nine hours of 300 or higher courses.) Take two or more courses from one science area, one of which is a 300 or higher level course. Student may not take more than 18 hours from any one department. (BIOL, BOTN, ESCI, and ZOOL courses are in the same department. GESC and GEOL courses are in the same department. PHY and ASTR courses are in the same department.) The major requires a total of 36 hours.

ASTR 203 Exploration of the Universe (3)

ASTR 204 Astronomical Investigations (1)

#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) (4)

BIOL 205 Field Biology (4)

BIOL 207 Elements of Ecology (2)

BIOL 224 Principles of Conservation (4)

BIOL 232 Nature Interpretation (3)

BIOL 412 Biogeography (3)

BIOL 413 Animal and Plant Preservation Techniques (1)

\*\*\*BIOL 591 Special Topics for Educators (3)

BOTN 209 Ornamental Plants (2)

BOTN 215 Economic Botany (3)

#BOTN 221 General Botany (satisfies general education requirement II.2 or II.3) (4)

BOTN 354 Trees and Shrubs (3)

\*\*\*BOTN 377/378/379, BOTN 477/478/479 Special Topics (1/2/3)

#CHEM 115-#CHEM 116 Chemistry and Society with lab (satisfies general education requirement II.1 or II.3) (4)

#CHEM 117-CHEM 118 Fundamentals of Chemistry with lab (satisfies general education requirement II.1 or II.3) (4)

#CHEM 120 Fundamentals of Organic and Biochemistry (satisfies general education requirement II.1 or II.3) (4)

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) (4)

ESCI 377/378/379 Special Topics (1/2/3)

#GEOL 120 The Fossil Record (satisfies general education requirement II.1 or II.3) (3)

#GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) (4)

GEOL 161 Historical Geology (4)

GEOL 229 Rocks of Michigan (2)

GEOL 325 Geomorphology (3)

GEOL 331 Paleontology (3)

GESC 114 National Parks and Monuments (2)

GESC 208 Natural Environmental Hazards (3)

GESC 227 Topographic Maps (2)

GESC 250 Introduction to Coastal Processes (3)

GESC 303 Field Geography (3)

GESC 309 Plate Tectonics (3)

GESC 320 The Oceans (3)

GESC 324 Weather (3)

GESC 327 Soil Science (3)

GESC 401 Cartography (3)

GESC 424 Climatology (3)

GESC 425 Severe and Unusual Weather (3)

#PHY 101 Physical Science in the Arts (satisfies general education requirement II.1 or II.3) (3)

#PHY 110 Physical Science (satisfies general education requirement II.1 or II.3) (4)

#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.1 or II.3) (4)

PHY 222 Electricity and Light (4)

PHY 311 Elementary Physical Science (3)

#ZOOL 222 General Zoology (satisfies general education requirement II.2 or II.3) (4)

ZOOL 223 Field Bird Study (1)

ZOOL 366 Economic Zoology (2)

\*\*\**Special Topics for Educators (subtitle) are appropriate for this major. These are courses with prefixes of ESCI, BIOL, ZOOL, CHEM, GESC, GEOL, or PHY and with course numbers of 377-379, 477-479 (1-3 hours)*

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coe/ed/ugrad/major/esc\\_t.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coe/ed/ugrad/major/esc_t.html).

**Language Arts Group Major****Elementary Teacher Certification**

**ISIS major code: TE37**

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in language arts, certification code "BX." The certification test covering this field is #01, "Language Arts."



<b>Teaching Major</b> .....	<b>36 hours</b>
One of: (satisfies general education requirement I.2) ....	2 or 3
#CTAS 124 Fundamentals of Speech (3)	
#CTAS 121 Fundamentals of Speech (2)	
#CTAO 210 Interpretative Reading (satisfies general education requirement IV.2) .....	3
LITR 207 Introduction to Children's Literature (required for elementary program) .....	3
One of: (satisfies general education requirement I.3) .....	3
#ENGL 225 Intermediate English Composition (elementary)	
#ENGL 323 Writing in the Professional World (special education)	
LING 201 An Introduction to Linguistics .....	3
#CTAR 222 Drama and Play in Human Experience (satisfies general education requirement IV.4) .....	3
One of: (satisfies general education requirement IV.1 or IV.2) .....	3
#LITR 100 The Reading of Literature (3)	
#LITR 101 The Reading of Literature: Fiction (3)	
#LITR 102 The Reading of Literature: Poetry (3)	
#LITR 103 The Reading of Literature: Drama (3)	
One of: .....	3
#LITR 204 Native American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)	
#LITR 260 African American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)	
#CTAC 374 Intercultural Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)	
#CTAC 375 Interracial/Interethnic Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)	
One of: .....	3
ENGL 450 Children's Literature: Criticism and Response (3)	
ENGL 451 Writing about Controversy in Literature for the Young (3)	
One of: .....	3
LITR 351 World Mythology (3)	
LITR 352 Folk Literature: Ballads and Folk Tales (3)	
LITR 453 Literature for the Young: Text and Illustration (3)	
LITR 454 Literature for the Young: Fantasy and Realistic (3)	
LITR 479 Special Topics (tagged Literature for the Young) (3)	
One of: .....	3
LING 205 English Words (3)	
LING 310 African American Language (3)	
LING 340 Language and Culture (3)	
One of: .....	3
CTAR 323 Improvising and Role-Play (3)	
CTAR 324 Oral Interpretation of Literature for the Young (3)	
CTAR 327 Plays for the Young (3)	
A one-hour elective if CTAS 121 is in the program (see the advising coordinator in the Department of Teacher Education)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/ted/ugrad/major/lag\\_t.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/ted/ugrad/major/lag_t.html).

## Social Studies Group Major (for Elementary Education)

### Elementary Teacher Certification

#### ISIS major code: TE36

Recommendation for endorsement in social studies (certification code "RX") requires a group major of 36 hours covering economics, geography, history and political science. The certification test covering social studies is #84, "Social Studies."

<b>Teaching Major</b> .....	<b>36 hours</b>
#PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1) .....	3
PLSC 301 The American Legal System .....	3
#GEOG 107 Introduction to Geography (satisfies general education requirement III.3) .....	3
#GEOG 110 World Regions (satisfies general education requirement III.3) .....	3
GEOG 320 Geography of the United States and Canada ....	3
#HIST 123 The United States to 1877 (satisfies general education requirement III.2) .....	3
#HIST 124 The United States, 1877 to the Present (satisfies general education requirement III.2, or if #HIST 123 is taken, III.4) .....	3
One of: .....	3
#HIST 109 World History to 1500 (satisfies general education requirement III.2) (3)	
#HIST 110 World History since 1500 (satisfies general education requirement III.2 or, if #HIST 109 is taken, III.4) (3)	
One of: (satisfies general education requirement III.3) .....	3
#SOCL 105 Introductory Sociology (3)	
#ANTH 135 Introduction to Cultural Anthropology (3)	
One of: (satisfies general education requirement III.3) .....	3
#ECON 100 Introduction to Economic Problems and Policies (3)	
#ECON 201 Principles of Economics I (3)	
One of: (MATH 108 and MATH 109 recommended before taking any of these) .....	3
ECON 300 Contemporary Economics (3)	
#ECON 321 Minority Workers in the Labor Market (satisfies general education requirement III.4 and the cross-cultural/international studies requirement)	
#ECON 328/#WMST 328 Economics of Women (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)	
ECON 375 Economic History of the United States (3)	
ECON 385 Economic Development (3)	
One of: (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) .....	3
#HIST 305 Indians of the United States (3)	
#HIST 315 History of Black Americans (3)	
#HIST 336/#WMST 336 History of Women in the United States and Great Britain, 1800 to the Present (3)	
#HIST 341 The Middle East, 1798 to the Present (3)	
#HIST 342 North Africa, 1798 to the Present (3)	
#HIST 348 20th-Century Africa (3)	
#HIST 356 Latin America: National Period (3)	
#HIST 375 Modern India (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coe/ted/ugrad/major/ssg\\_t.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coe/ted/ugrad/major/ssg_t.html).

## Arts Group Minor

Elementary and Special Education-Elementary Teacher Certification  
(not available with Art Minor, Music Minor, or with Technology Minor)

ISIS minor code: TE31

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in fine arts, certification code "OX." The certification test covering this field is #53, "Fine Arts."

#FA 101 Introduction to Art (satisfies general education requirement IV.4) .....	3
*FA 300 Art Integration for the Elementary Teacher .....	4
MUSC 104 Elements of Music .....	2
*MUSC 320 Elementary Music Education .....	2
*TEDU 253 Technology Education for Children .....	3
TEDU 354 Experiences in Technology for Children .....	2
8 hours from: .....	8
CTAA 168/CTAA 268/CTAA 368/CTAA 468 Interpretation (1 each)	
#CTAR 222 Drama and Play in Human Experience (satisfies general education requirement IV.4) (3)	
CTAR 322 Theatre for the Young (3)	
CTAR 323 Improvising and Role-Play (3)	
CTAR 324 Oral Interpretation of Literature for the Young (3)	
CTAR 497/498/499 Independent Study (1/2/3)	
#CTAO 210 Interpretative Reading (satisfies general education requirement IV.2) (3)	
#CTAR 106 Introduction to the Performing Arts (satisfies general education requirement IV.4) (3) (Not open to those with credit in MUSC 106)	
#CTAR 150 Introduction to Theatre (satisfies general education requirement IV.4) (3)	
#CTAR 151 African American Theatre: An Introduction (satisfies general education requirement IV.4 and the cross-cultural/international studies requirement) (3)	
CTAR 153 Technical Theatre: Costume and Makeup (2)	
CTAR 251 African American Theatre: Creative Problems (3)	
Other courses in drama/theatre for the young or theater arts	
#FA 100 Art Appreciation (satisfies general education requirement IV.4) (3)	
#FA 107 Art History Survey I (satisfies general education requirement IV.4) (3)	
#FA 108 Art History Survey II (satisfies general education requirement IV.4) (3)	
#FA 122 Two-Dimensional Design (satisfies general education requirement IV.4) (3)	
#FA 123 Drawing I (satisfies general education requirement IV.4) (3)	
FA 124 Drawing II (3)	
FA 201 Introduction to Graphic Design I (3)	
FA 210 Life Drawing (3)	
FA 215 History of 19th Century Art (3)	
FA 231 Three-Dimensional Design (3)	
FA 235 Textiles (3)	
FA 304 Beginning Photographic Imagery (3)	
FA 307 Ceramics (3)	
FA 310 Sculpture (3)	
FA 320 Jewelry (3)	
FA 341 History of Renaissance Art (3)	
FA 421 History of Oriental Art (3)	
FA 425 Arts of Africa (3)	

FA 426 Medieval Art History (3)	
FA 427 Baroque Art (3)	
FA 429 History of American Architecture (3)	
FA 430 Meso-American Art (3)	
FA 436 Women in Art (3)	
TEDU 118 Energy Technology (3)	
TEDU 152 Arts and Crafts (3)	
#MUSC 106 Introduction to the Performing Arts (satisfies general education requirement IV.4) (3) (Not open to those with credit in CTAR 106)	
#MUSC 107 Music Appreciation (satisfies general education requirement IV.4) (2)	
MUSC 151 Class Piano (2)	
MUSC 152 Class Piano (2)	
MUSC 232 Voice Class (1)	
MUSC 131 University Choir (1)	
MUSC 134 University Women's Chorus (1)	
MUSC 135 University Men's Chorus (1)	
MUSC 249 Band (1)	
MUSC 248 Orchestra (1)	
MUSC 274 Functional Guitar (2)	
MUSC 224 Recreational Music (2)	
Other courses in music	
INDT 121 Graphic Communication (3)	
TEDU 103 Structures and Design in Technology (3)	
TEDU 106 Processing Technology (3)	
TEDU 114 Information and Control Technology (3)	

**Total: 24 hours**

*Advising note: Students are advised that some of the courses listed have prerequisites that are not necessarily met by other courses in the program. In order to avoid taking excess hours, students should select from courses for which the prerequisites have been met.*

*\*Advising note: These courses satisfy both general education requirements and requirements of the minor. In order to avoid taking excess hours, prospective teachers of fine art are advised to take these courses, or approved substitutes from another institution, as part of the general education requirements.*

*\*Included in professional studies for elementary program.*

## Early Childhood Education Minor

Elementary and Special Education-Elementary Teacher Certification

ISIS minor code: TE37

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in early childhood, certification code "ZA." The certification test covering this field is #82, "Early Childhood."

CURR 214 The Developing Child in ECE .....	3
CURR 215 The Developing Professional in ECE .....	2
CURR 302 Methods of Integrating Curriculum and Resources in ECE .....	3
***CURR 303 Implementing the Curriculum in ECE .....	2
EDPS 341 Assessment of the Young Child .....	3
EDUC 495 Student Teaching .....	4
Three of the following four courses: .....	9
EDPS 307 Young Children in Peril: Educational Implications (3)	
CURR 314 Infants and Toddlers in ECE (3)	
EDPS 318 Play and Creativity in ECE (3)	
PHED 381 Motor Development of the Young Child (3)	

**Total: 26 hours**

*\*\*\*Admission to the teacher education program required.*

## Elementary Science Group Minor

### Elementary and Special Education-Elementary Teacher Certification

#### ISIS minor code: TE32

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code "DX." The certification test covering this field is #16, "Science."

\*\*One of: (satisfies general education requirement II.2 or II.3)

#PSY 101 General Psychology (3)

#PSY 102 General Psychology (4)

\*\*#CHEM 101 Science for Elementary Teachers (satisfies general education requirement II.3) ..... 3

\*\*#GESC 202 Science for Elementary Teachers (satisfies general education requirement II.1 or II.3) ..... 3

\*\*#ESCI 303 Science for the Elementary Teacher (satisfies general education requirement II.2 or II.3) ..... 3

\*\*#PHY 100 Science for Elementary Teachers (satisfies general education requirement II.1 or II.3) ..... 3

If PSY 101 is in the program, choose nine credits from the entire list of courses below so that the minor has a total of 24 hours. If PSY 102 is in the program, choose eight credits from the entire list of courses below to total 24 hours. The selections of electives must include at least six hours of courses at the 300 level or higher. (ESCI 303 is the other three hours for the minor requirement of nine hours of 300 or higher courses.) Take two or more courses from one science area, one of which is a 300 or higher level course.

ASTR 203 Exploration of the Universe (3)

ASTR 204 Astronomical Investigations (1)

#BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3) (4)

BIOL 205 Field Biology (4)

BIOL 207 Elements of Ecology (2)

BIOL 224 Principles of Conservation (4)

BIOL 232 Nature Interpretation (3)

BIOL 412 Biogeography (3)

BIOL 413 Animal and Plant Preservation Techniques (1)

\*\*BIOL 591 Special Topics for Educators (2)

BOTN 209 Ornamental Plants (2)

BOTN 215 Economic Botany (3)

#BOTN 221 General Botany (satisfies general education requirement II.2 or II.3) (4)

BOTN 354 Trees and Shrubs (3)

\*\*\*BOTN 377/378/379, BOTN 477/478/479 Special Topics (1/2/3)

\*#CHEM 115-#CHEM 116 Chemistry and Society with lab (satisfies general education requirement II.1 or II.3) (4)

#CHEM 117-CHEM 118 Fundamentals of Chemistry with lab (satisfies general education requirement II.1 or II.3) (4)

#CHEM 120 Fundamentals of Organic and Biochemistry (satisfies general education requirement II.1 or II.3) (4)

#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) (4)

ESCI 377/378/379 Special Topics (1/2/3)

#GEOL 120 The Fossil Record (satisfies general education requirement II.1 or II.3) (3)

#GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) (4)

GEOL 161 Historical Geology (4)

GEOL 229 Rocks of Michigan (2)

GEOL 325 Geomorphology (3)

GEOL 331 Paleontology (3)

GESC 114 National Parks and Monuments (2)

GESC 208 Natural Environmental Hazards (3)

GESC 227 Topographic Maps (2)

GESC 250 Introduction to Coastal Processes (3)

GESC 303 Field Geography (3)

GESC 309 Plate Tectonics (3)

GESC 320 The Oceans (3)

GESC 324 Weather (3)

GESC 327 Soil Science (3)

GESC 401 Cartography (3)

GESC 424 Climatology (3)

GESC 425 Severe and Unusual Weather (3)

#PHY 101 Physical Science in the Arts (satisfies general education requirement II.1 or II.3) (3)

#PHY 110 Physical Science (satisfies general education requirement II.1 or II.3) (4)

#PHY 221 Mechanics, Sound, and Heat (satisfies general education requirement II.1 or II.3) (4)

PHY 222 Electricity and Light (4)

PHY 311 Elementary Physical Science (3)

#ZOO 222 General Zoology (satisfies general education requirement II.2 or II.3) (4)

ZOO 223 Field Bird Study (1)

ZOO 366 Economic Zoology (2)

**Total: ..... 24 hours**

*#Advising note: These courses satisfy both general education requirements and requirements of the minor. In order to avoid taking excess hours, prospective elementary teachers are advised to take these courses, or approved substitutes from another institution, as part of the general education requirements.*

*\*Required in general education in the elementary program.*

*\*\*Required in general education in some programs.*

*\*\*\*Special Topics for Educators (subtitle) are appropriate for this minor. These are courses with prefixes of ESCI, BIOL, ZOO, CHEM, GESC, GEOL, or PHY and with course numbers of 377-379, 477-479 (1-3 hours)*

## Language Arts Group Minor

### Elementary and Special Education-Elementary Teacher Certification

#### ISIS minor code: TE41

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in language arts, certification code "BX." The certification test covering this field is #01, "Language Arts."

\*LITR 207 Introduction to Children's Literature (required for elementary program) ..... 3

LING 201 An Introduction to Linguistics ..... 3

One of: (satisfies general education requirement I.3) ..... 3

#ENGL 225 Intermediate English Composition (elementary)

#ENGL 323 Writing in the Professional World (special education)

One of: (satisfies general education requirement IV.1 or IV.2) ..... 3

#LITR 100 The Reading of Literature (3)

#LITR 101 The Reading of Literature: Fiction (3)

#LITR 102 The Reading of Literature: Poetry (3)

#LITR 103 The Reading of Literature: Drama (3)

One of: ..... 3

#LITR 204 Native American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)	
#LITR 260 African American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)	
#CTAC 374 Intercultural Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)	
#CTAC 375 Interracial/Interethnic Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)	
One of: .....	3
ENGL 450 Children's Literature: Criticism and Response (3)	
ENGL 451 Writing about Controversy in Literature for the Young (3)	
One of: .....	3
LITR 351 World Mythology (3)	
LITR 352 Folk Literature: Ballads and Folk Tales (3)	
LITR 453 Literature for the Young: Text and Illustration (3)	
LITR 454 Literature for the Young: Fantasy and Realistic (3)	
LITR 479 Special Topics (tagged Literature for the Young) (3)	
One of: .....	3
#CTAO 210 Interpretative Reading (satisfies general education requirement IV.2) (3)	
#CTAR 222 Drama and Play in Human Experience (satisfies general education requirement IV.4) (3)	
CTAR 323 Improvising and Role-Play (3)	
CTAR 324 Oral Interpretation of Literature for the Young (3)	
<b>Total: .....</b>	<b>24 hours</b>

\*Satisfies elementary professional requirement

### Social Studies Group Minor (Elementary)

Elementary and Special Education-Elementary Teacher Certification

ISIS minor code: TE40

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in social studies, certification code "RX." The certification test covering this field is #84, "Social Studies."

#PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1) .....	3
PLSC 301 The American Legal System .....	3
#GEOG 107 Introduction to Geography (satisfies general education requirement III.3) .....	3
#GEOG 110 World Regions (satisfies general education requirement III.3) .....	3
#HIST 106 Asian and African Civilizations (satisfies general education requirement III.2) .....	3
#HIST 124 The United States, 1877 to the Present (satisfies general education requirement III.2, or if #HIST 123 is taken, III.4) .....	3
One of: (satisfies general education requirement III.3) .....	3
#ECON 100 Introduction to Economic Problems and Policies (3)	
#ECON 201 Principles of Economics I (3)	
One of: (MATH 108 and MATH 109 recommended before taking any of these) .....	3
ECON 300 Contemporary Economics (3)	
#ECON 321 Minority Workers in the Labor Market (satisfies general education requirement III.4 and the cross-cultural/international studies requirement)	

#ECON 328/WMST 328 Economics of Women (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)	
ECON 375 Economic History of the United States (3)	
ECON 385 Economic Development (3)	

**Total: .....** 24 hours

### Structure of the Disciplines Minor

Elementary Certification

ISIS minor code: TE43

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.

#ENGL 121 English Composition (satisfies general education requirement I.1) .....	3
LITR 207 Introduction to Children's Literature .....	3
MATH 108 Mathematics for Elementary Teachers I .....	3
#MATH 109 Mathematics for Elementary Teachers II (satisfies general education requirement I.4) .....	3
MATH 381 The Teaching of Mathematics, K-6 .....	3
#PHY 100 Science for Elementary Teachers (satisfies general education requirement II.1 or II.3) .....	3
#CHEM 101 Science for Elementary Teachers (satisfies general education requirement II.3) .....	3
GESC 202 Science for Elementary Teachers .....	3
#ESCI 303 Science for the Elementary Teacher (satisfies general education requirement II.2 or II.3) .....	3
TEDU 253 Technology Education for Children .....	3
FA 300 Art Integration for the Elementary Teacher .....	4
MUSC 104 Elements of Music .....	2
MUSC 320 Elementary Music Education .....	2
#PSY 101/#PSY 102 General Psychology (satisfies general education requirement II.2 or II.3) .....	3-4
#PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1) .....	3
#GEOG 110 World Regions (satisfies general education requirement III.3) .....	3
HLED 320 Health Education in the Elementary Grades .....	2
PHED 257 Physical Education for the Classroom Teacher .....	2
<b>Total: .....</b>	<b>24 hours</b>

### Curriculum Courses

**CURR 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: Department permission.

**CURR 214 The Developing Child in ECE** 3 hrs  
Developmental patterns of children in various settings. Physical, mental, social and emotional components of growth through the first five stages of the family life cycle, with emphasis on the child from two to five years. Impact of the family resources, attitudes and values on young children. Concurrent registration in CURR 215 required.

Prereq: PSY 101 and sophomore standing.

**CURR 215 The Developing Professional in ECE** 1 hr  
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 under-



stand child development theories as the bases for early childhood programs. Concurrent registration in CURR 214 required.

*Prereq: PSY 101 and sophomore standing.*

**CURR 277/278/279 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CURR 302 Methods of Integrating Curriculum and Resources in ECE** 3 hrs

To help students design and implement developmentally appropriate curricula and programs for children prekindergarten through third grade. An inquiry approach will be used to assist the student in broadening the scope of curriculum to provide for individual interests and needs.

*Prereq: EDPS 322 or EDPS 325; CURR 214 and CURR 215. Taken concurrently with CURR 303. Admission to the teacher education program.*

**CURR 303 Implementing the Curriculum in ECE** 2 hrs

This course is divided into two parts, the first being a 1 1/2 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 one of the following age groups: infants/toddlers, preschoolers, or kindergartners.

*Prereq: EDPS 322 or EDPS 325; CURR 214 and CURR 215. Taken concurrently with CURR 302. Admission to the teacher education program.*

**CURR 304 Curriculum and Methods: Elementary** 3 hrs

The concept of curriculum and its relationship to differing philosophies of education and styles of teaching. The instructional process and multiple teaching strategies examined and applied through lesson planning and demonstration. Social studies content used in lesson planning by students seeking elementary certification. Classroom management principles and techniques considered in the light of a curriculum and instruction perspective. Includes a planned practicum experience in public schools in addition to the regularly scheduled hours.

*Prereq: EDPS 322 or EDPS 325. Admission to the teacher education program. Coreq: FETE 301. Pre- or coreq: SOFD 328.*

**CURR 305 Curriculum and Methods: Secondary** 3 hrs

The concept of curriculum and its relationship to differing philosophies of education and styles of teaching. The instructional process and multiple teaching strategies examined and applied through lesson planning and demonstration. Classroom management principles and techniques considered in the light of a curriculum and instruction perspective. Includes a planned practicum experience in public schools in addition to the regularly scheduled hours.

*Prereq: EDPS 322 or EDPS 325. Admission to the teacher education program. Coreq: FETE 302. Pre- or coreq: SOFD 328.*

**CURR 314 Infants and Toddlers in ECE** 3 hrs

The home as a center for the nurture and development of infants and toddlers (conception to 2 1/2 years) with particular emphasis on the dynamics of the parent-child relationship.

*Prereq: CURR 214 and CURR 215.*

**CURR 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CURR 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CURR 486/488/489 Internship in Teacher Education** 1/2/3 hrs

Directed experience involving a field placement in curriculum.

*Prereq: Department permission.*

**CURR 497/498/499 Independent Study** 1/2/3 hrs

Advanced study on an individual basis in areas in which the department does not offer a formal course.

*Prereq: Department permission.*

### Educational Media Courses

**EDMD 101 Use of Books and Libraries** 2 hrs

Practical instruction in the use of the library's tools and materials. Offered on demand.

**EDMD 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**EDMD 277/278/279 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**EDMD 345 Media for the Classroom Teacher** 1 hr

A methods course in which students will produce instructional materials in their teaching area and demonstrate the use of these materials in the classroom environment. The selection, utilization, and evaluation of teaching materials. Various types of media production and utilization equipment.

*Prereq: Admission to the teacher education program.*

**EDMD 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**EDMD 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**EDMD 497/498/499 Independent Study** 1/2/3 hrs

Advanced study on an individual basis in areas in which the department does not offer a formal course.

*Prereq: Department permission.*

### Educational Media and Technology Courses

**EDMT 330 Instructional Applications of Media and Technology** 2 hrs

This course guides pre-service teacher educators to critically and creatively apply the concepts, principles, hardware and software associated with the infusion of technology in solving educational problems and meeting challenges in their roles as facilitators of learning.

*Prereq: Admission to the teacher education program. CURR 304 or CURR 305.*

## Educational Psychology Courses

**EDPS 106 Strategic Learning for Academic Success** 3 hrs  
Introduction to EMU services, diagnostic testing of learning styles, and learning strategies for academic success.

**EDPS 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**EDPS 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**EDPS 307 Young Children in Peril: Educational Implications** 3 hrs  
This course analyzes the critical conditions of young children living in poverty and the social-psychological development of all children whose families are in crisis. Educational implications for teachers are emphasized with a focus on child advocacy and early educational interventions that promote understanding of family, ethnic, cultural and socioeconomic diversity.  
*Prereq: CURR 214 and CURR 215, or instructor permission.*

**EDPS 318 Play and Creativity in ECE** 3 hrs  
An overview of approaches to play and creative expression in the education of young children. Applications will be made to the fields of early childhood, elementary education, special education, and extended day programs. Students will conduct observations and interviews on play and experiment with a variety of play materials and media with children.  
*Prereq: CURR 214, CURR 215, and admission to the teacher education program.*

**EDPS 322 Human Development and Learning** 4 hrs  
The study of childhood psychology from birth through adolescence with a focus on intellectual and psychosocial behavior and the role of parents and teachers in fostering learning and development.  
*Coreq: FETE 201.*

**EDPS 325 Life Span Human Growth and Development** 4 hrs  
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.  
*Prereq: PSY 101/PSY 102.*

**EDPS 340 Introduction to Assessment and Evaluation** 3 hrs  
Basic principles in evaluation and assessment. Students will construct and interpret tests and alternative assessments; critique standardized tests; assess social, affective and behavioral factors; use computer applications; and examine assessment issues.  
*Prereq: EDPS 322. Admission to the teacher education program. Coreq: FETE 301 or FETE 302, and CURR 304 or CURR 305.*

**EDPS 341 Assessment of the Young Child** 3 hrs  
Procedures and practices used in the evaluation and assessment of young children from birth through the elementary years, with emphasis on children up through age eight.  
*Prereq: EDPS 322, CURR 214, CURR 215, and admission to the teacher education program.*

**EDPS 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**EDPS 402 Learning in the Later Years** 3 hrs  
Introduction to the nature of age-related changes and differences among age groups found in the teaching-learning process. Learning in later years, including processes, strategies and variables associated with the older learner.  
*Prereq: PSY 101 or equivalent.*

**EDPS 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**EDPS 497/498/499 Independent Study** 1/2/3 hrs  
Advanced study on an individual basis in areas in which the department does not offer a formal course.  
*Prereq: Department permission.*

## Educational Technology Courses

**EDTC 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**EDTC 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**EDTC 300 Introduction to Computer Applications in Education** 1 hr  
An introductory course in educational technology with an emphasis on the emergence of technology in schools. Technology and its applications in schools past, present and future. How to operate a microcomputer and run commercially prepared educational software. Instructional applications of microcomputers, programming languages, communications and educational information. Basic concepts concerned with information processing, systems design and artificial intelligence.  
*Prereq: None. Although the emphasis is educational applications of computers, the course has appeal for any student interested in an introduction to the operation and uses of the microcomputer.*

**EDTC 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**EDTC 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

### Field Experience Courses

**FETE 201 Field Experience I** 1 hr  
Prospective teachers will participate in a service-learning experience in a diverse community, and examine their beliefs and attitudes about working with others who are different from themselves.  
*Coreq: EDPS 322.*

**FETE 301 Field Experience II: Elementary** 1 hr  
Field placement in an elementary school. Focus is on reflective teaching and assessment decisions.  
*Prereq: EDPS 322. Coreq: CURR 304.*

**FETE 302 Field Experience II: Secondary** 1 hr  
Field placement in a middle level or high school. Focus is on reflective teaching and assessment decisions.  
*Prereq: EDPS 322. Coreq: CURR 305.*

**FETE 401 Field Experience III: Elementary** 1 hr  
Field placement in an elementary school with a diverse student population. Emphasis is on developing literacy in diverse populations and adapting instruction to individual student needs.  
*Prereq: CURR 304. Coreq: RDNG 314.*

**FETE 402 Field Experience III: Secondary** 1 hr  
Field placement in a middle level or high school with a diverse student population. Emphasis is on developing literacy in diverse populations and adapting instruction to individual student needs.  
*Prereq: CURR 305. Coreq: RDNG 311.*

### Reading Courses

**RDNG 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**RDNG 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**RDNG 311 Teaching Reading in the Secondary School** 3 hrs  
The developmental sequence for reading skills at the junior and senior high school levels and methods for teaching the sequence, including teaching programs for all students. Providing reading instruction within the context of the various areas. Required for all students who seek certification to teach in secondary schools.  
*Prereq: CURR 305. Admission to the teacher education program. Coreq: FETE 402.*

**RDNG 314 Teaching Reading in the Elementary School** 6 hrs  
The developmental aspects of reading and language arts programs from preschool through elementary school. Theoretical and research knowledge pertinent to child growth and development and fundamental skills appropriate for the teaching of reading and language arts. Field-based experiences. Required for all students who seek certification to teach in elementary schools.  
*Prereq: CURR 304. Admission to the teacher education program. Coreq: FETE 401.*

**RDNG 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**RDNG 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

### Social Foundations Courses

**SOFD 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**SOFD 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**SOFD 328 Schools in a Multicultural Society** 3 hrs  
A study of the interactive relationship between schools and society, and the development of a culturally responsible pedagogy. Special emphasis on educational equity and the theoretical foundations of multicultural education.  
*Prereq: Admission to the teacher education program. EDPS 322 or EDPS 325.*

**SOFD 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**SOFD 477/478/479 Special Topics** 1/2/3 hrs  
A study of select issues in social foundations of education. Topics may vary from term to term. Students may elect this course several times, provided different topics are covered.  
*Prereq: Department permission.*

**SOFD 497/498/499 Independent Study** 1/2/3 hrs  
Intensive study of a problem or theory supervised by a faculty member in social foundations of education.  
*Prereq: Department permission and consent of instructor.*

# **College of Health and Human Services**

**Elizabeth C. King  
Dean**

**Polly Buchanan  
Interim Associate Dean**

**212 King Hall  
734.487.0077**

## **DEPARTMENTS**

**Associated Health Professions**

**Human, Environmental and Consumer Resources**

**Nursing**

**Social Work**



## College of Health and Human Services

**Web site:** [www.emich.edu/public/chhs/chhshome.html](http://www.emich.edu/public/chhs/chhshome.html)

The College of Health and Human Services prepares professionals with the appropriate combination of knowledge and skills that will enable them to enhance the quality of life and facilitate social change to meet societal needs.

The programs in the College focus on the preparation of professionals for a unique combination of health and human services disciplines. As a result, curricula are built around an integration of knowledge with practice. Experiential education that is community based strongly links theory and practice. The curricula focus on a holistic view of individuals, groups, families, communities and the process of change. The interrelationships of people, institutions and services are also included. A unique contribution is the preparation of students for professional roles within the service delivery system.

### Clinical Affiliations

Following is a representative list of agencies with which the College of Health and Human Services is affiliated:

Allen Park Veterans Administration Hospital, Allen Park  
 Alzheimer's Association, Southfield  
 Ann Arbor Veterans Administration Medical Center, Ann Arbor  
 Annapolis Hospital, Wayne  
 Battle Creek Public Schools, Battle Creek  
 William Beaumont Hospital, Royal Oak  
 Bixby Hospital, Adrian  
 Borgess Hospital, Kalamazoo  
 Bortz Health Care  
 Botsford Hospital, Farmington Hills  
 Robert B. Brigham Hospital, Boston, M.A.  
 Brighton Hospital, Brighton  
 Business/Education Alliance, Detroit  
 Chelsea Community Hospital, Chelsea  
 Children's Hospital of Michigan, Detroit  
 Cincinnati General Hospital, Cincinnati, OH  
 Citizen's for Better Care, Traverse City  
 Comfort Inn, Ypsilanti  
 Complete Home Health Care Services, Southfield  
 Cooperative Extension Service, Ann Arbor  
 Cottage Hospital, Grosse Pointe Farms  
 Karen deKoning Design, Ann Arbor  
 Detroit Area Agency on Aging  
 Detroit Health Care for the Homeless, Detroit  
 Detroit Medical Center, Detroit  
 Detroit Memorial Hospital, Detroit  
 Detroit Orthopedic Clinic, Detroit  
 Detroit Psychiatric Institute, Detroit  
 Easter Seal Society of Wayne County, Inkster  
 Flower Hospital, Sylvania, OH  
 W.A. Foote Hospital, Jackson  
 Henry Ford Estate, Dearborn  
 Henry Ford Home Health Care  
 Henry Ford Hospital, Detroit  
 Henry Ford Hospital, Fairlane  
 Flint Osteopathic Hospital, Flint  
 Garden City Hospital, Garden City  
 Glacier Hills Nursing Center, Ann Arbor  
 Gorman's, Southfield  
 Grace Hospital  
 Heritage Hospital, Taylor  
 University of Indiana Medical Center, Indianapolis, IN

Institute of Living, Hartford, CT  
 Institute of Rehabilitation Medicine, New York, NY  
 Jacobson's, Jackson  
 JC Penney Company, Southfield  
 Jewish Home for the Aged, Detroit  
 Klenczar Linda Korbesoja, ASID, Ypsilanti  
 Life Skills Center, Howell  
 The Linen Center, St. Louis, MO  
 Livingston County Health Department, Howell  
 Livonia Public Schools, Livonia  
 Macomb County Health Department  
 McLaren Hospital, Flint  
 Metropolitan West Health Maintenance Organization, Westland  
 Michigan Retailers Association, Lansing  
 Milan Federal Correctional Institution Infirmary, Milan  
 Monroe County Health Department  
 Muskegon Public Schools, Muskegon  
 Normal Street House, Ypsilanti  
 North Carolina Memorial Hospital, Chapel Hill, NC  
 Northville Public Schools, Northville  
 Oakwood Hospital, Dearborn  
 The Ohio State University Hospitals, Columbus, OH  
 Oakdale Developmental Center, Lapeer  
 Oakland County Health Department, Pontiac  
 Pontiac General Hospital, Pontiac  
 Port Huron Hospital, Port Huron  
 Providence Hospital, Southfield  
 Rehabilitation Institute, Inc., Detroit  
 Rehabilitation Institute of Chicago, Chicago, IL  
 Residence Inn, Ann Arbor  
 Roth Young Personnel Service, Southfield  
 Rush-Presbyterian-St. Luke's Medical Center, Chicago, IL  
 Safehouse Shelter for Battered Women, Ann Arbor  
 Saginaw Public Schools, Saginaw  
 Saline Community Hospital, Saline  
 Saline Public Schools, Saline  
 Sinai Hospital of Detroit, Detroit  
 Springfield Hospital, Springfield, VT  
 SOS Community Crisis Center, Ypsilanti  
 Southwest Detroit Hospital, Detroit  
 St. John's Hospital, Detroit  
 St. Joseph Hospital, Flint  
 St. Joseph Mercy Hospital, Ann Arbor  
 St. Mary's Hospital, Livonia  
 St. Vincent's Hospital, Toledo, OH  
 State of Michigan Department of Public Health  
 Synod House, Ypsilanti  
 Therapeutic Day Clinic, Inkster  
 Tri County Home Health Care, Southfield  
 University of Michigan Hospitals, Ann Arbor  
 University of Michigan Facility Design Department, Ann Arbor  
 Veterans Administration Medical Center, Ann Arbor  
 Visiting Nurse Association of Huron Valley  
 Washtenaw County Community Mental Health Program, Ann Arbor  
 Washtenaw County Health Department, Ann Arbor  
 Washtenaw County League for Planned Parenthood, Ann Arbor  
 Wayne-Westland Schools  
 Wayne County Head Start Program, Wayne  
 Weber's Inn, Ann Arbor  
 Whitmore Lake Convalescent Center, Whitmore Lake  
 Willow Run Community Schools, Ypsilanti  
 Wyandotte General Hospital, Wyandotte  
 Ypsilanti Public Schools, Ypsilanti  
 Zingerman's, Ann Arbor

## College of Health and Human Services Courses

### IHHS 177/178/179 Special Topics 1/2/3 hrs.

This course focuses on the multiple career options within the health care delivery system. Issues related to career selection, education, costs, and staffing needs are explored. Concepts related to all health careers are also examined: health and illness; beliefs and values; people; the health care delivery system and communication in health care. This is an introductory course for all freshman and sophomore majors in the College of Health and Human Services.

### IHHS 226 Computers for Health and Human Services 3 hrs

This interdisciplinary computer literacy course will introduce students to computers and their applications in health and human services. Students will learn about computers and computer languages. This course will include applications of computer technology to direct services for clients as well as the use of computers to manage work.

### IHHS 277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

### IHHS 377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

### IHHS 477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

## Associated Health Professions

Web site: [www.emich.edu/public/dahp/dahphome.html](http://www.emich.edu/public/dahp/dahphome.html)

**Ruth A. Hansen**  
**Department Head**  
**328 King Hall**  
**734.487.2474**

**E-mail: [ruth.hansen@emich.edu](mailto:ruth.hansen@emich.edu)**

**Professors:** Richard Douglass, Ruth Hansen, Stephen Sonstein  
**Associate Professors:** David Clifford, Sherry Sayles, Roberto Torres  
**Assistant Professors:** Normajeane Bennett, Gerry Conti, Virginia Dickie, Sandra Drake, Elizabeth Francis-Connolly, Gary Hammerberg, Valerie Howell, Judith Olson

**Instructor:** Colleen Croxall

The Associated Health Professions Department offers programs that lead to the baccalaureate in clinical laboratory sciences, health administration, and occupational therapy. The department also offers a minor in health administration and a certificate program in phlebotomy. In addition, the department offers several interdisciplinary courses relating to the health services and the health care specialties.

### Clinical Laboratory Sciences Program

**Sandra Drake**  
**Program Director**  
**327 King Hall**  
**734.487.0154**

#### Degree

Bachelor of Science

#### Programs of Study

##### Curriculum:

Clinical laboratory sciences (Clinical certification tracks include: medical technology, cytogenetics, cytotechnology, histotechnology, and phlebotomy.)

The clinical laboratory sciences program offers two tracks, the clinical certification track that includes submajors of medical technology, cytogenetics, cytotechnology, and histotechnology; and the professional track. Each leads to the bachelor of science degree. Successful completion of a three-course sequence in phlebotomy qualifies students to take a national certification examination in phlebotomy. 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 studies 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.

#### Advising Coordinators:

Students are assigned to a faculty adviser upon declaring clinical laboratory sciences as a major.

### Clinical Laboratory Sciences

#### 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. The cytogenetics, cytotechnology, and histotechnology options consist of six semesters of course work, and 12 months of clinical rotations through an accredited clinical laboratory. These clinical laboratories include the University of Michigan, Ann Arbor; Veteran's Administration Hospital, Ann Arbor; St. Joseph Mercy Hospital, Ann Arbor; Providence Hospital, Southfield; Henry Ford Hospital, Detroit; and Wm. Beaumont Hospital, Royal Oak. These programs are accredited by the National Accrediting Agency for Clinical Laboratory Sciences.

2. *Professional track:* This option consists of eight semesters of course work in the general education, basic and advanced sciences, and clinical sciences. Included will be a strongly recommended cooperative education experience in industry or academia. Graduates will be prepared for careers in pharmaceutical, clinical diagnostics 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 credit 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 grade point average 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 the junior year.

Application packets can be obtained from the Associated Health Professions Department office. Completed applications must be in the office by March 15 in order to be considered for acceptance for the winter semester.

Selection criteria include overall EMU GPA, letters of recommendation, overall science GPA, interview evaluations, and completed application form.

Admission to the clinical laboratory sciences curriculum/clinical track is competitive and is based on the following:

1. A minimum grade point average 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, any four-year college/university, or at a community college.
2. A minimum science GPA of 2.7.
3. Completion of at least 60 credit hours of university credit, including 45 credit hours of prerequisite mathematics and science courses, as indicated on the application form.
4. Three letters of recommendation. It is suggested that references should include a science instructor and an employer.
5. Students must document that they will have completed all prerequisite clinical laboratory sciences courses prior to beginning clinical rotations in the spring of their senior year.

The first three years of clinical laboratory sciences are the same for both the professional and clinical tracks. It is likely that acceptance into the clinical track will be highly competitive. Clinical laboratory sciences majors who are not accepted into the clinical track program, yet desire to sit for the registry examination in medical technology, have the following options:

1. Completion of the bachelor of science degree in clinical laboratory sciences (professional track) at Eastern Michigan University and filing a reapplication to the clinical track program.
2. Completion of all required course work for the bachelor of science degree in clinical laboratory sciences and application to an approved hospital-based school of medical technology. The faculty advisers will assist students in the application process. Students are selected for internship placement through a statewide computer matching process. The selection process is completed in February each year, with internships usually beginning during the month of July. A bachelor of science in clinical laboratory sciences will qualify the student to apply to hospitals within Michigan and throughout the United States.

Hospital-based schools of medical technology (internship programs) affiliated with the University are:

Detroit Medical Center, Detroit  
Garden City Osteopathic, Garden City  
St. John Hospital, Detroit  
Genesys-St. Joseph, 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.

## Cytotechnology/Histotechnology Track

### Specialization in cytotechnology

**Program Director:** Susan Dingler

A cytotechnologist is a trained laboratory professional who detects cell disease by light microscopic examination of cell samples from all areas of human blood.

Students may be accepted into the cytotechnology program after completing the required science, mathematics, and clinical laboratory science courses. University general education requirements also must be met. The senior year consists of a 12 month internship at Henry Ford. The program includes an integrated presentation of didactic material, microscopic study, specimen preparation, clinical observation, cytogenetics, laboratory management, and a research project.

### Specialization in histotechnology

**Program Director:** Peggy Wenk

Histotechnologists perform a variety of diagnostic and research procedures in the anatomic sciences. Basic histologic techniques involve the processing and staining of tissue specimens that have been removed from humans or animals by biopsy or autopsy. Advanced techniques involve the use of the electron microscope, immunofluorescence microscopy, autoradiography, cytogenetics, and medical photography.

Students may be accepted into the histotechnology specialization after completing the required science, mathematics, and clinical laboratory science courses. University general education requirements must also be met. The senior year consists of a 12 month internship at William Beaumont Hospital School of Histotechnology.

### Specialization in cytogenetics

**Program Director:** Jim Zabawski (Henry Ford Hospital)

Cytogenetic technologists work independently under general supervision and can interpret and implement established procedures to prepare biological specimens for cytogenetics analysis, perform the analysis, and construct and interpret karyotypes.

Students may be accepted into the cytogenetics specialization after completing the required science, mathematics, and clinical laboratory science courses. University general education requirements must also be met. The senior year consists of a 12 month internship at Henry Ford Hospital in the Cytogenetics department. The program consists of an integrated presentation of didactic material and intensive laboratory study in the area of cytogenetics that includes specimen preparation, cell culture, chromosome analysis, microscopy, and photography.

## Clinical Laboratory Sciences Major—Clinical Track

**ISIS major code:** AH02

**Major in clinical laboratory sciences—clinical track:** ..... 53 hours

AHPR 200 Medical Terminology .....	1
CLSC 101 Introduction to Clinical Laboratory Sciences .....	1
CLSC 200 Clinical Laboratory Techniques .....	2
CLSC 307 Urinalysis, Body Fluids, and Hemostasis .....	3
CLSC 335 Clinical Immunology .....	4
CLSC 401 Laboratory Management/Education/Quality Assurance .....	3
CLSC 402 Applications of Clinical Chemistry to Pathophysiology .....	3
CLSC 407 Hematology .....	4
CLSC 432 Clinical Microbiology .....	3
CLSC 433 Clinical Microbiology Laboratory .....	2
CLSC 434 Advanced Immunohematology .....	3

CLSC 450 Hematology/Coagulation Practicum .....	5
CLSC 452 Clinical Immunology/Immunohematology Practicum .....	5
CLSC 454 Clinical Chemistry Practicum .....	5
CLSC 455 Clinical Chemistry Laboratory .....	2
CLSC 456 Clinical Microbiology Practicum .....	5
CLSC 457 Clinical Methods Practicum .....	1
CLSC 459 Clinical Mycology Practicum .....	1

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/clscclin.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/clscclin.html).

## Clinical Laboratory Sciences Major—Professional Track

**ISIS major code:** AH04

**Major in clinical laboratory sciences—professional**

<b>track:</b> .....	<b>54 hours</b>
AHPR 200 Medical Terminology .....	1
BOTN 446 Medical Mycology .....	4
CHEM 123 General Chemistry II .....	3
CHEM 124 General Chemistry II Laboratory .....	1
CHEM 270 Organic Chemistry .....	4
CHEM 281 Quantitative Analysis .....	4
CHEM 451 Biochemistry I .....	3
CLSC 101 Introduction to Clinical Laboratory Sciences .....	1
CLSC 200 Clinical Laboratory Techniques .....	2
CLSC 307 Urinalysis, Body Fluids, and Hemostasis .....	3
CLSC 335 Clinical Immunology .....	4
CLSC 401 Laboratory Management/Education/Quality Assurance .....	3
CLSC 402 Applications of Clinical Chemistry to Pathophysiology .....	3
CLSC 407 Hematology .....	4
CLSC 432 Clinical Microbiology .....	3
CLSC 433 Clinical Microbiology Laboratory .....	2
CLSC 434 Advanced Immunohematology .....	3
CLSC 455 Clinical Chemistry Laboratory .....	2
Electives .....	2

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/clscprof.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/clscprof.html).

## Cytogenetics Curricula

**ISIS major code:** AH0403

**Major in clinical laboratory sciences—cytogenetics:** ..... 47

AHPR 200 Medical Terminology .....	1
CLSC 101 Introduction to Clinical Laboratory Sciences .....	1
CLSC 200 Clinical Laboratory Techniques .....	2
CLSC 300 Molecular Diagnostics .....	3
CLSC 335 Clinical Immunology .....	4
CLSC 407 Hematology .....	3
CLSC 432 Clinical Microbiology .....	3
CLSC 433 Clinical Microbiology Laboratory .....	2
CLSC 410-CLSC 411 Cytogenetics, Clinical Internship I-II .....	28

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/cyto.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/cyto.html).



## Cytotechnology/Histotechnology Curricula

**Histotechnology ISIS major code: AH0401**

**Cytotechnology ISIS major code: AH0402**

<b>Major in clinical laboratory sciences—histotechnology/cytotechnology:</b> .....	<b>51 hours</b>
AHPR 200 Medical Terminology .....	1
CLSC 101 Introduction to Clinical Laboratory Sciences .....	1
CLSC 200 Clinical Laboratory Techniques .....	2
CLSC 300 Molecular Diagnostics .....	3
CLSC 307 Urinalysis, Body Fluids, and Hemostasis .....	3
CLSC 335 Clinical Immunology .....	4
CLSC 407 Hematology .....	4
CLSC 432 Clinical Microbiology .....	3
CLSC 433 Clinical Microbiology Laboratory .....	2
CLSC 410-CLSC 411 Cytogenetics, Clinical Internship I-II .....	28

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/cytohisto.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/cytohisto.html).

## Health Administration Program

**Roberto Torres**  
**Program Director**  
**328 King Hall**  
**734.487.0460**

### Degree

Bachelor of Science

### Programs of Study

#### Curricula:

- Health administration
- Health services management (degree completion track)

Advising is available by the faculty in the health administration program offices.

**Honors Adviser:** Richard L. Douglass

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 migrant workers, the homeless and prisoners. Student writing, publication, and opportunities for research are central to the program's mission.

### Clinical Affiliations

The Health Administration program is closely affiliated with the American Academy of Medical Administrators (AAMA) and the American College of Health Executives (ACHE). The Health Administration Student Association is a Student Chapter of the American College of Health Care Executives. Internship opportunities are an important 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  
 Catherine McAuley Health Center, Ann Arbor  
 Chelsea Community Hospital, Chelsea  
 City of Detroit, Bureau of Substance Abuse Services, Detroit  
 Detroit Health Care for the Homeless, Detroit  
 Detroit Osteopathic Hospital Corporation, Detroit  
 Detroit Receiving Hospital, Detroit  
 Garden City Osteopathic Hospital, Garden City  
 Health Alliance Plan of Michigan, Detroit  
 Henry Ford Hospital, Detroit

Hospice of Washtenaw, Ann Arbor  
 Hospice of Livingston County, Howell  
 Institute of Women's Medicine, Hutzel Hospital, Detroit  
 Laurel Home Health Care Centers, Ypsilanti  
 M-Care, Ann Arbor  
 McAuley-McPhearson Health Care, Howell  
 Michigan Blue Shield and Michigan Blue Cross, Detroit  
 Michigan Insurance Bureau, Lansing  
 Michigan Department of Corrections  
 Michigan Department of Mental Health  
 Michigan Department of Public Health  
 Munson Hospital, Traverse City  
 Milan Federal Correctional Institution, Milan  
 Oakland County Department of Public Health  
 Packard Community Clinic, Ann Arbor  
 Saline Community Hospital, Saline  
 St. John Hospital, Detroit  
 St. Joseph Mercy Hospital, Ann Arbor  
 St. Mary's Hospital, Saginaw  
 Seaway Hospital, Trenton  
 Springfield Hospital, Springfield, VT  
 Traverse City Osteopathic Hospital, Traverse City  
 University of Michigan Hospitals, Ann Arbor  
 Visiting Nurse Association of Huron Valley, Ann Arbor  
 Washtenaw County Community Mental Health Program, Ann Arbor  
 Wayne County Medical Examiner's Office, Detroit

## Health Administration Curriculum

**ISIS major code: AH05**

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 senior year unless waived by the program director due to significant administrative experience. Courses denoted with an asterisk (\*) complete the requirements for a degree. No outside minor is required, however, many students elect the gerontology minor.

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 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.

A minor in health administration is available to undergraduate students at Eastern Michigan University. The curriculum for the minor in health administration includes 20-22 credit hours. Students interested in the minor should contact the program in writing and meet with the program's minor curriculum adviser.

<b>Major in health administration:</b> .....	<b>57 hours</b>
<i>Required courses in Health Administration (HLAD):</i> .....	<i>33 hours</i>
HLAD 305 Introductory Seminar in the U.S. Health Care System .....	3
HLAD 310 Administration of Health Care Organizations ...	3
HLAD 311 Management of Health Services .....	3
HLAD 416 Health Planning .....	3
HLAD 417 Health Regulation .....	3

HLAD 420 Financial Management of Health Institutions ....	3
HLAD 421 Managed Care .....	3
HLAD 425 Decision Making for Health Administrators .....	3
HLAD 480 Internship Seminar in Health Administration ....	3
HLAD 488 Internship .....	6
<i>Required courses in Associated Health Professions (AHPR):</i> 9 hours	
AHPR 200 Medical Terminology .....	1
AHPR 208 Ethical Dimensions in Health Care Delivery .....	2
AHPR 305 Data Analysis for the Health Sciences (or MKTG 360 Principles of Marketing) .....	3
AHPR 401 Legal Issues in Health Care (or LAW 293 Legal Environment of Business, or PLSC 301 The American Legal System) .....	3
<i>Required courses in business administration and liberal arts:</i> 15 hours	
ECON 436 Health Economics .....	3
ACC 240 Principles of Accounting I .....	3
MGMT 384 Human Resource Management .....	3
DS 265 Business Statistics I (or any of the following basic statistics courses: PSY 205 Quantitative Methods in Psychology, ECON 310 Economic Statistics, #SOCL 250 Social Statistics I (satisfies general education requirement I.4)) .....	3
#BEDU 201 Microcomputers for Business Applications (satisfies general education requirement I.5) (or any other computer literacy course) .....	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/hlad.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/hlad.html).

## Health Services Management Track Curriculum

**ISIS major code: AH05**

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. 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.

**Major in health administration—health services management track:** 27 hours

AHPR 200 Medical Terminology .....	1
AHPR 208 Ethical Dimensions in Health Care Delivery .....	2
AHPR 305 Data Analysis for the Health Sciences .....	3
AHPR 401 Legal Issues in Health Care .....	3
HLAD 305 Introductory Seminar in the U.S. Health Care System .....	3
HLAD 310 Administration of Health Care Organizations ...	3
HLAD 311 Management of Health Services .....	3
HLAD 416 Health Planning or HLAD 417 Health Regulation .....	3
HLAD 420 Financial Management of Health Institutions ....	3
HLAD 425 Decision Making for Health Administrators .....	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/hsm.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coh/ahpr/ugrad/major/hsm.html).

## Occupational Therapy Program

**Virginia Dickie**  
Program Director  
328 King Hall  
734.487.0461

### Degree

Bachelor of Science

### Program of Study

#### Curriculum

Occupational therapy

Advising for occupational therapy-intent students is performed by the Academic Advising Center. After acceptance into the occupational therapy program, students are assigned a faculty adviser.

All students in the professional program must meet with their advisers before registering each semester.

### Special Requirements

#### Admission

- Students must first be accepted to the University by the Office before they can be considered by the Occupational Therapy Screening Committee. However, admission to EMU does not guarantee admission to occupational therapy. After acceptance by the University, a separate application must then be made to the occupational therapy program. Applications are available from occupational therapy in King Hall or from the Admissions Office.
- Admission to the occupational therapy curriculum is competitive and based on the following:
  - A minimum grade point average of 2.7 on a 4.0 scale; at least a "B-" in two prerequisites and at least a "C" in the other one.
  - Completion of at least 40 credit hours of college credit (in addition to physical education activity courses) including the following prerequisites:
    - #PSY 101 General Psychology (satisfies general education requirement II.2 or II.3)
    - #BIOL 105 Introductory Biology for Non-majors (satisfies general education requirement II.2 or II.3)
    - #CHEM 117-CHEM 118 Fundamentals of Chemistry with lab (satisfies general education requirement II.1 or II.3) or equivalent.
  - Acceptance is provisional. Before the student begins the professional curriculum, evidence of successful completion of at least 55 credit hours and the following additional prerequisite courses must be presented with at least a "B-" in four of these courses and at least a "C" in the other one: a psychology course at the 200 level or above; a course in art, music, theatre, or dance; life span human growth and development, or psychology of development, or child psychology; a course in medical terminology; and human physiology (ZOOL 326).  
The prerequisite courses may be taken at EMU or at another four-year college/university. Individuals with fewer than 75 credit hours of transferrable credits may take courses at a junior or community college.
  - Completed information on the application form with emphasis on work/volunteer experiences with individuals having special needs.
  - Three references required: at least one from a supervisor of work or volunteer experience with individuals having special needs. Personal references are not acceptable (e.g., relatives, friends, neighbors.)
  - Application deadlines are December 1 for the following fall semester and June 1 for the following winter semester.

The availability of fieldwork placements and other considerations restrict the number of students admitted to the classes that begin each fall and winter semester.

Criteria for continuance in the occupational therapy curriculum is based upon the following:

1. Scholarship:
  - a. A minimum EMU cumulative grade point average of 2.0 on a 4.0 scale must be maintained.
  - b. All students must achieve a minimum letter grade of "C-" in all courses in the OT program (OCTH 300, OCTH 302, OCTH 303, OCTH 304, OCTH 308, OCTH 400, OCTH 403, OCTH 418, OCTH 420, OCTH 421, OCTH 425, OCTH 488, OCTH 489, gerontology; ZOOL 317, ZOOL 417; HLAD 300; and TEDU 358).
 

If the student receives a "C-" or below in an occupational therapy course, the student must retake the course and obtain at least a "C" grade before the student is allowed to take the next course in the sequence and will be automatically placed on "Academic Warning" status. A second "C-" or below in any course in the OT program will result in automatic dismissal.
  - c. A letter grade of "E" in any required course will result in automatic dismissal from the OT program.
2. Demonstrated competence in:
  - a. Speaking effectiveness
  - b. Written expression
3. Demonstrated responsibility for:
  - a. Punctuality and attendance
  - b. Communication with instructors, supervisors, students
  - c. Organization of time
  - d. Professional appearance
4. Freedom from any kind of probation, administrative, academic, or social. While on academic probation, no student may register for, remain in, or receive credit for the science and mathematics courses or the practical arts (Group VI) courses within the occupational therapy curriculum.

Supervised fieldwork of a minimum of six months is required for the baccalaureate and to become eligible for the national certification examination. Assignment to field placement is arranged and approved by the program and is by recommendation of the occupational therapy faculty. OCTH 488 and OCTH 489 OT Fieldwork are full-time placements of a minimum of three months each. All fieldwork experiences must be completed within 24 months of completion of the academic portion of the program.

Certification requires successful completion of all academic requirements and fieldwork experiences. A registered occupational therapist (OTR) is one who has passed the certification examination administered by the National Board for Certification in Occupational Therapy (NBCOT).

The Occupational Therapy Program is accredited by the Accreditation 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. AOTA'S phone number is 301.652.AOTA. Graduates of the program will be able to sit for the national certification examination 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). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

The professional segment of the program requires four semesters of academic courses and, in addition, a minimum of six months full-time fieldwork experience. Courses in the occupational therapy major are usually offered in the fall and winter semesters only.

## Occupational Therapy Curriculum

ISIS major code: AH06

The occupational therapy curriculum leads to a bachelor of science degree in occupational therapy. Completion of courses identified by an asterisk (\*) satisfies all major and minor requirements for a degree. No outside minor is needed.

<b>Major in occupational therapy:</b>	<b>57 hours</b>
HLAD 300 Health Care Issues	2
OCTH 300 Introduction to Occupational Therapy	3
OCTH 302 Occupational Activities I	3
OCTH 303 Conditions I	3
OCTH 304 Occupational Activities II	3
OCTH 308 Programming I	5
OCTH 400 The OT Manager and Consultant	3
OCTH 403 Conditions II	3
OCTH 418 Programming II	5
OCTH 419 Programming III	3
OCTH 420 Level I Fieldwork (part-time)	3
OCTH 421 Level I Fieldwork (part-time)	3
OCTH 425 Critical Thinking in Occupational Therapy	3
OCTH 488 OT Fieldwork (full-time)	6
OCTH 489 OT Fieldwork (full-time)	6
TEDU 358 Tools and Materials	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acad/colleges/coh/ahpr/ugrad/major/ot.html](http://www.emich.edu/public/catalogs/current/acad/colleges/coh/ahpr/ugrad/major/ot.html).

## Health Administration Minor

ISIS minor code: AH01

Students must complete these course requirements for the health administration minor:

<b>Required Courses:</b>	<b>15-16</b>
HLAD 300 Health Care Issues or HLAD 305 Introductory Seminar in the U.S. Health Care System	2-3
HLAD 310 Administration of Health Care Organizations	3
HLAD 311 Management of Health Services	3
HLAD 420 Financial Management of Health Institutions	3
AHPR 401 Legal Issues in Health Care	3
AHPR 200 Medical Terminology	1

**Restricted electives:** 5-6

Students must elect two of the following:

AHPR 401 Legal Issues in Health Care	(3)
HLAD 479 Special Topics	(3)
AHPR 208 Ethical Dimensions in Health Care Delivery	(2)
AHPR 305 Data Analysis for the Health Sciences	(3)
SWRK 431 Substance Abuse	(3)
SWRK 438 The Interdisciplinary Health Care Team	(3)
GERT 404 Gerontology Interdisciplinary Seminar	(3)
AAS 351 The Social Context of African American Health	(3)

**Total:** 20-22 hours

## Clinical Laboratory Science Phlebotomy Program

The clinical laboratory science program, in conjunction with Ann Arbor area hospitals, has established a phlebotomy training program. This program consists of three courses. The program can be completed in two semesters. This allows the students the opportunity to become employed as health care professionals at good paying jobs while they continue their education.

Upon successful completion of AHPR 200, CLSC 201, and CLSC 202, students will qualify to take a national certification examination in

phlebotomy, such as the examination given by the American Society of Phlebotomy Technicians.

### Interdisciplinary Courses

#### AHPR 177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

#### AHPR 196 Introduction to Health Careers 2 hrs

An introductory course designed to familiarize the student with careers in the health sciences. Various careers such as medical technology, nursing, dietetics, health administration, occupational therapy, medicine, clinical psychology, physical therapy and others will be presented by individuals in the respective disciplines. Education requirements, career opportunities, and clinical experience requirements will be highlighted.

#### AHPR 200 Medical Terminology 1 hr

A detailed study of medical terminology, through which students will achieve a working medical vocabulary. Anatomical terms, and terminology relating to diseases and disease processes will be presented. This course is designed for students entering a health-related education program, and is a prerequisite for admission to the occupational therapy program. Credit/no credit.

#### AHPR 208 Ethical Dimensions in Health Care Delivery 2 hrs

This course presents information that students interested in the health professions may use to identify ethical situations and to resolve dilemmas they may face in their professional lives.

#### AHPR 277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

#### AHPR 305 Data Analysis for the Health Sciences 3 hrs

Introduction to the application of statistical methods and research design to a range of practice and research problems in the health sciences.

*Prereq: College algebra.*

#### AHPR 377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

#### AHPR 401 Legal Issues in Health Care 3 hrs

This is a survey of the laws that govern the health care system. Litigation, malpractice, contract, regulatory, health care personnel, and the use of human subjects in medical research are among the topics discussed.

#### AHPR 477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

### Clinical Laboratory Sciences Courses

#### CLSC 101 Introduction to Clinical Laboratory Sciences 1 hr

An overview of the profession highlighting the various areas of clinical laboratory sciences: medical technology, phlebotomy, cytology, histology, cytogenetics and tissue typing. The course provides information on employment opportunities including wage and salary benefits, legal issues, and certification in the profession. The course also highlights the

benefits of a clinical laboratory science degree for individuals contemplating advanced degrees in medicine or graduate school.

#### CLSC 177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

#### CLSC 200 Clinical Laboratory Techniques 2 hrs

Basic skills necessary to function in a clinical laboratory; e.g., phlebotomy, use of the microscope, specimen collection and preparation, pipetting and lab safety.

*Prereq/coreq: AHPR 200.*

#### CLSC 201 Phlebotomy Techniques 2 hrs

Phlebotomy Techniques is presented in a lecture-laboratory format. The course is designed to present the theory of blood collection and the practical techniques for venipuncture and skin puncture. Topics included in the course will cover the phlebotomist's role, professionalism and ethics, laboratory and hospital organization, specimen collection techniques, various blood drawing equipment, patient interaction, and some medical and laboratory terminology.

*Prereq/coreq: AHPR 200 or department permission.*

#### CLSC 202 Clinical Phlebotomy Practicum 2 hrs

The Clinical Phlebotomy Practicum is the second course in a two-course sequence designed to prepare students for entry-level positions as phlebotomists. The practicum will generally consist of 40 hours of training at an affiliated institution. Graded on a credit/no credit basis.

*Prereq: Permission of instructor and CLSC 201.*

#### CLSC 277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

#### CLSC 300 Molecular Diagnostics 3 hrs

This course covers molecular-diagnostic techniques in the clinical laboratory. Topics will include laboratory diagnosis of infectious and genetic diseases through cytogenetic, molecular cytogenetic and DNA molecular technology.

*Prereq/coreq: CLSC 335*

#### CLSC 307 Urinalysis, Body Fluids, and Hemostasis 3 hrs

Lecture and laboratory covering urines, body fluids and hemostasis. Specimen collection and handling, physical examination, chemical testing, and microscopic evaluation of urines and body fluids; evaluation of hemostasis testing and hemostasis theory.

*Prereq: CLSC 200, CHEM 270-CHEM 271.*

#### CLSC 335 Clinical Immunology 4 hrs

Lecture and laboratory presenting theory, basic principles, and practical experience in clinical immunology. The correlation of basic principles to human disease state.

*Prereq: CLSC 200 or permission of instructor.*

#### CLSC 377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

#### CLSC 387 Cooperative Education in Clinical Laboratory Science 3 hrs

Three or four months of full-time employment at a clinical, research or industrial laboratory or related area chosen for providing a practical edu-



ational experience in clinical laboratory sciences. The program consists of two work experiences alternating with full-time attendance at the University. Offered on a graded or credit/no credit basis.

*Prereq: CHEM 270, 271; permission of program director.*

**CLSC 401 Laboratory Management/Education/Quality Assurance** 3 hrs

Basic management skills for laboratory personnel and laboratory. Personnel practices, equipment and reagent purchase, and laboratory information systems including computer applications, laboratory statistics, and evaluation of methods are covered in this lecture course.

*Prereq: MATH 170 or equivalent.*

**CLSC 402 Applications of Clinical Chemistry to Pathophysiology** 3 hrs

This lecture course covers the relationship of clinical chemistry to diagnosis, prognosis, and treatment of disease. Focus will be on testing procedures, instrumentation, and controlling the functions in order to provide correct information to the medical staff.

*Prereq: CHEM 451 or permission of instructor.*

**CLSC 405 Cytotechnology Clinical Internship** 14 hrs

Microscopic study of cellular alterations indicative of cancer and precancerous conditions, bacterial, viral and parasitic infections, and hormonal abnormalities; cytogenetics; and a research project.

*Prereq: program approval.*

**CLSC 406 Cytotechnology Clinical Internship** 14 hrs

Continuation of CLSC 405.

*Prereq: program approval.*

**CLSC 407 Hematology** 4 hrs

This lecture and laboratory course covers the theory and application of hematological test procedures, interpretation of results, problem solving, and correlation of laboratory findings with disease states. *Not open to those with credit in BIOL 407.*

*Prereq: CLSC 200 or department permission.*

**CLSC 410 Cytogenetics, Clinical Internship I** 14 hrs

CLSC 410 and CLSC 411 cytogenetics clinical rotation I and II will be used for the clinical practice for the cytogenetics track in the CLS program. The student will set up tissue cultures, harvest cells, prepare slides for analysis, and prepare analysis for a broad spectrum of genetic abnormalities. This will include photograph and computer-assisted chromosome analysis. Procedures will include chronic villus, fragile X and sister chromatid exchanges.

*Prereq: Program approval.*

**CLSC 411 Cytogenetics, Clinical Internship II** 14 hrs

Continuation of CLSC 410.

*Prereq: Program approval.*

**CLSC 416 Basic Histotechnology and Histochemical Staining Methods** 12 hrs

Didactic and practicum experience in preparing histologic sections for light microscopy, including the study of more than 50 different histologic staining methods and their specific applications.

*Prereq: Program approval.*

**CLSC 417 Basic Electron Microscopy** 8 hrs

Didactic and practicum experience in basic biological electron microscopy. Electron microscopic histochemistry and special techniques are also covered. Emphasis is on the electron microscope as a medical diagnostic tool.

*Prereq: Program approval.*

**CLSC 418 Immunohisto-Cytochemistry** 4 hrs

A course designed to teach basic and advanced procedures of fluorescent and enzyme-labeled antibody techniques. The course includes the preparation of tissues, staining with labeled antibodies, and the use of fluorescence microscopes in clinical medicine and research.

*Prereq: Program approval.*

**CLSC 419 Internship Special Histotechnology Techniques** 4 hrs

A course designed to present didactic and practicum experience in molecular pathology, including in-situ-hybridization and DNA analysis. Cytogenetics will be presented with emphasis on preparing karyotypes and chromosome identification. A research project will be required on a related topic, then formalized and presented as a lecture. Management and education methodologies will be presented.

*Prereq: Program approval.*

**CLSC 432 Clinical Microbiology** 3 hrs

Course covers mechanisms of pathogenesis associated with specific bacterial, viral, fungal, and parasitic etiological agents of human disease.

*Prereq: CLSC 335 or permission of the instructor.*

**CLSC 433 Clinical Microbiology Laboratory** 2 hrs

Laboratory will cover methods of detection, isolation, enumeration, and identification of human pathogenic microorganisms encountered in the clinical microbiology laboratory.

*Prereq: CLSC 335 or permission of the instructor. Coreq: CLSC 432.*

**CLSC 434 Advanced Immunohematology** 3 hrs

Principles and procedures used in the blood bank. The laboratory is designed to simulate problem situations in the clinical laboratory. Not open to those with credit in BIOL 434.

*Prereq: CLSC 307 and CLSC 335.*

**CLSC 450 Hematology/Coagulation Practicum** 5 hrs

An intensive, hands-on clinical experience in routine hematology, coagulation, and special techniques at an advanced level.

*Prereq: Acceptance into clinical track.*

**CLSC 452 Clinical Immunology/Immunohematology Practicum** 5 hrs

An intensive, hands-on clinical experience at an advanced level of instruction in blood banking, immunology and serology.

*Prereq: Acceptance into clinical track.*

**CLSC 454 Clinical Chemistry Practicum** 5 hrs

An intensive, hands-on clinical experience at an advanced level of instruction in automated chemistry, radioimmunoassay, electrophoresis and toxicology.

*Prereq: Acceptance into clinical track.*

**CLSC 455 Clinical Chemistry Laboratory** 2 hrs

This laboratory course includes theory, instrumentation, and current procedures used in clinical chemistry laboratories. Analysis will be done on clinical specimens, and a clinical chemistry quality-control program will be integrated throughout the semester.

*Prereq or coreq: CLSC 402.*

**CLSC 456 Clinical Microbiology Practicum** 5 hrs

An intensive, hands-on clinical experience at an advanced level of instruction in clinical microbiology.

*Prereq: Acceptance into clinical track.*

**CLSC 457 Clinical Methods Practicum** 1 hr

This one-week, intensive course includes an orientation to hospitals training students, a one-day experience at the American Red Cross, and a combined urinalysis/phlebotomy experience at the hospital affiliates.

*Prereq: Acceptance into clinical track.*

**CLSC 459 Clinical Mycology Practicum 1 hr**

This is an intensive introductory lecture and laboratory course highlighting medically important fungi, disease states, and laboratory methods of isolation and identification. Credit/no credit.

*Prereq: Acceptance into clinical track or permission of instructor.*

**CLSC 477/478/479 Special Topics 1/2/3 hrs**

Advanced level courses covering specific topics in clinical laboratory sciences not discussed in other clinical laboratory sciences courses.

*Prereq: Permission of instructor.*

**CLSC 487 Cooperative Education in Clinical Laboratory Science 3 hrs**

Three to four months of full-time employment at a clinical, research or industrial laboratory or related area chosen for providing a practical educational experience in clinical laboratory sciences. The program consists of two work experiences alternating with full-time attendance at the University. Offered on a graded or credit/no credit basis.

*Prereq: CLSC 387, permission of program director.*

**CLSC 497/498/499 Independent Study 1/2/3 hrs**

Independent, original endeavors involving library and/or laboratory work under the guidance of a clinical laboratory program faculty member or clinical associate faculty member.

*Prereq: Permission of the instructor.*

**Health Administration Courses****HLAD 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**HLAD 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**HLAD 287 Cooperative Education in Health Education 3 hrs**

Employment for pay in a work setting chosen to provide practical experience related to health administration. The cooperative education sequence consists of two work experiences (HLAD 287 and HLAD 387) alternating with full-time attendance at the University.

*Prereq: Sophomore standing and health administration major.*

**HLAD 300 Health Care Issues 2 hrs**

This survey of the organization, traditions, professional stratification, and current issues of the U.S. health care system is designed to introduce the non-health administration major to the field of managing and administering health care services in hospitals, public health systems, nursing homes and ambulatory settings.

**HLAD 305 Introductory Seminar in the U.S. Health Care System 3 hrs**

A survey of important issues facing the health field: the U.S. health care system and the relationship between components; the changing nature of the health field and implications for the future (encouraged in sophomore year or early junior year).

**HLAD 310 Administration of Health Care Organizations 3 hrs**

Analysis of modern health care organizations with emphasis on management structure, boards of trustees, administration, physicians, and others. Delivery of institutional patient care, role of professionals and other personnel, and departmental interrelatedness.

*Prereq: HLAD 305.*

**HLAD 311 Management of Health Services 3 hrs**

A continuation of HLAD 310, 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.

*Prereq: HLAD 310.*

**HLAD 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**HLAD 387 Cooperative Education in Health Education 3 hrs**

Employment for pay in a work setting chosen to provide practical experience related to health administration. The cooperative education sequence consists of two work experiences (HLAD 287 and HLAD 387) alternating with full-time attendance at the University.

*Prereq: Department permission.*

**HLAD 416 Health Planning 3 hrs**

This course examines in detail the essence of health planning as practiced in the health care industry. Topics include the history of health planning, planning theory and conceptual foundations, public sector planning and policy-making, private-sector planning and health planning methods. Special emphasis is placed on health planning as an ongoing process that should be developed by health care organizations in order to be successful.

*Prereq: HLAD 310, and one course in statistics or AHPR 305*

**HLAD 417 Health Regulation 3 hrs**

This course will provide an overview of health care regulation from the perspective of providers, the government regulator and the general citizenry. Topics of discussion will include licensing and private accreditation, the regulation relating to cost containment, alternative delivery systems, health care reform, rate regulation and health planning.

*Prereq: HLAD 310, and one course in law (AHPR 401, LAW 293, or PLSC 301).*

**HLAD 420 Financial Management of Health Institutions 3 hrs**

The application of generic concepts and tools to the health field.

*Prereq: HLAD 310.*

**HLAD 421 Managed Care 3 hrs**

This course will provide an overview of the managed-care industry. It will discuss the origins of managed care, the mechanics of managed care, and the effects of managed care across the various constituencies involved (purchaser, provider and patient). The role of managed care in the area of health reform will also be treated in some detail.

*Prereq: HLAD 310 and HLAD 420.*

**HLAD 425 Decision Making for Health Administrators 3 hrs**

The integration of many knowledge areas into health administration. A capstone course utilizing case studies, role playing, simulation and games.

*Prereq: HLAD 310.*

**HLAD 477/478/479 Special Topics 1/2/3 hrs**

For seniors. Topics included will depend upon the interests of the students and the faculty member's field of specialization. Topics generally include planning, regulation, and issues of special populations such as the homeless and prisoners.

*Prereq: Department permission.*

**HLAD 480 Internship Seminar in Health Administration 3 hrs**

Seminar for those students taking an internship to provide a forum for the exchange of ideas and experiences.

*Prereq: Program permission, and enrolled in internship program. Departmental GPA of 2.5 or higher.*

**HLAD 487/488/489 Internship 3/6/9 hrs**

Internship to provide formally structured and directed work experience to assist in integrating classroom learning with professional perspectives and working requirements.

*Prereq: Program permission, concurrent enrollment in HLAD 480.*

**HLAD 497/498/499 Independent Study 1/2/3 hrs**

Under the supervision of a health administration faculty member, study in subjects not covered in other course offerings, or advanced study in areas of special interest to the student.

*Prereq: Program permission.*

### Occupational Therapy Courses

**OCTH 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**OCTH 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**OCTH 287 Cooperative Education in Occupational Therapy 3 hrs**

A two-course sequence that provides a work position designed to offer experience related to occupational therapy while the student receives academic credit and financial support. Available to students pursuing the profession of occupational therapy at the freshman, sophomore or junior levels. Consists of either full-time work experience alternating with full-time attendance at the University, or a combination of part-time work and academic courses. Cooperative education does not substitute for occupational therapy Fieldwork I or II.

*Prereq: Approval of the cooperative education office and program permission.*

**OCTH 300 Introduction to Occupational Therapy 3 hrs**

OCTH 300 is a foundation course for the advanced professional courses in the OT curriculum. Course content includes an introduction to the concept of occupation, the ecological philosophy of the EMU-OT curriculum, values (professional and personal), uniform terminology in OT practice, context, therapeutic use of self, brief history of the OT profession, roles of OTs, code of ethics, professional associations and publications, skill development in transfers, disease-control techniques and use of the Canadian Performance Measure, and professional writing.

*Prereq: Admission to the program. Coreq.: ZOO 317.*

**OCTH 302 Occupational Activities I 3 hrs**

The theory, analysis, and application of activities used in occupational therapy.

*Coreq: OCTH 300.*

**OCTH 303 Conditions I 3 hrs**

Health and illness, and select conditions that affect occupational performance and require OCTH intervention.

*Prereq: For OT majors: OCTH 300, ZOO 317, and ZOO 326. For non-OT majors: department permission. Prereq or coreq: ZOO 417*

**OCTH 304 Occupational Activities II 3 hrs**

Analysis of sensory motor function and application of specific tools to evaluate performance.

*Prereq: OCTH 302, OCTH 303, OCTH 308. OT majors only.*

**OCTH 308 Programming I 5 hrs**

Theory and application of occupational therapy in working with consumers of mental health services. Includes methods of evaluation and development of intervention plans for a range of service delivery models.

*Prereq: OCTH 300 and OCTH 302. Coreq: OCTH 303 and ZOO 417*

**OCTH 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**OCTH 387 Cooperative Education in Occupational Therapy 3 hrs**

A two-course sequence that provides a work position designed to offer experience related to occupational therapy while the student receives academic credit and financial support. Available to students pursuing the profession of occupational therapy at the freshman, sophomore or junior levels. Consists of either full-time work experience alternating with full-time attendance at the University, or a combination of part-time work and academic courses. Cooperative education does not substitute for occupational therapy Fieldwork I or II.

*Prereq: OCTH 287.*

**OCTH 400 The OT Manager and Consultant 3 hrs**

The issues covered in HLAD 300 as they pertain to occupational therapy.

*Prereq: OCTH 304, OCTH 403, OCTH 418, and OCTH 421. Coreq: HLAD 300.*

**OCTH 403 Conditions II 3 hrs**

Conditions that interrupt development and performance in later childhood and adolescence, and necessitate intervention.

*Prereq: For OT majors: OCTH 303, OCTH 308. For non-OT majors: department permission.*

**OCTH 418 Programming II 5 hrs**

Methods of evaluating physical function across the life span. Results of evaluations are used to develop program plans for those with physical dysfunction.

*Prereq: OCTH 303 and OCTH 308. Coreq: OCTH 304 and OCTH 403*

**OCTH 419 Programming III 3 hrs**

The rationale and methods of evaluating the developmental status of the young child in relation to the performance of life tasks. Includes methods of translating the evaluation data into program plans appropriate for the young child.

*Prereq: OCTH 418.*

**OCTH 420 Level I Field work 3 hrs**

Exploring the role of an occupational therapist in a clinical setting.

*Prereq: OCTH 300 and OCTH 302*

**OCTH 421 Level I Field work 3 hrs**

Exploring the role of an occupational therapist in a nontraditional clinical setting.

*Prereq: OCTH 420. Coreq: OCTH 403 and OCTH 418. OT majors only.*

**OCTH 425 Critical Thinking in Occupational Therapy 3 hrs**

*Prereq: OCTH 403, OCTH 418, OCTH 421, OCTH 304.*

**OCTH 477/478/479/480 Special Topics 1/2/3/4 hrs**

Experimental courses or special topics in occupational therapy may be offered.

*Prereq: Department permission.*

**OCTH 488/489 OT Field work (full-time) 6 hrs each**

A full-time, three-month experience in a select health services agency, in which the student will gain in-depth experience in evaluation and programming for occupational therapy intervention. Credit/no-credit.

*Prereq: Department permission; completion of all courses in major.*

**OCTH 490 Field work (full-time elective)**

6 hrs

A fieldwork experience with special populations, or in special settings other than those completed in the required placements. Credit/no-credit.

*Prereq: OCTH 488 and OCTH 489; department permission.*

**OCTH 497/498/499 Independent Study**

1/2/3 hrs

Independent work following an approved plan to develop knowledge in specialized areas.

*Prereq: Department permission.*

## Human, Environmental and Consumer Resources

Web site: [www.emich.edu/public/hecr/hecrhome.htm](http://www.emich.edu/public/hecr/hecrhome.htm)

**George Liepa**

**Department Head**

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**734.487.1217**

**E-mail: [george.liepa@emich.edu](mailto:george.liepa@emich.edu)**

**Professors:** Deborah deLaski-Smith, Louise Jones, George U. Liepa

**Associate Professor:** Judi Brooks, Pauline Buchanan, Kelly Welker

**Assistant Professors:** Giri Jogaratnam, Abraham Kadushin, Sarah E. Moore, Alice Jo Rainville, Denver Severt, Deborah W. Silverman

The Human, Environmental and Consumer Resources Department prepares students for professional roles in dietetics; apparel, textiles and merchandising; hotel and restaurant management; and interior design. Emphasis is placed on improving the quality of life for individuals. Career opportunities are available in private and public institutions, in educational systems, in businesses and industry, and with federal, state, and local governmental agencies.

The dietetics program is accredited by the Commission on Accreditation/Approval for Dietetics Education (CADDE) of the American Dietetic Association. The interior design program is accredited by the Foundation for Interior Design Education Research (FIDER).

**Degree**

Bachelor of Science

**Programs of Study****Curricula:**

Dietetics

Apparel, Textiles and Merchandising

Hotel and Restaurant Management

Interior Design

**Minors:**

Apparel, Textiles and Merchandising

Human Environments

Nutrition

Advising is arranged by calling 734.487.2490 for an appointment. Specialized advising may be obtained according to the following list. Faculty members may be contacted directly.

**Advising Coordinators:**

Dietetics: Pauline Buchanan

Apparel, textiles and merchandising: Sarah Moore

Hotel and restaurant management: Giri Jogaratnam

Interior design: Louise Jones

Nutrition: Pauline Buchanan

Graduate study leads to the master's degree in Human, Environmental, and Consumer Resources; see the graduate catalog.

### Apparel, Textiles and Merchandising Major

**ISIS major code: HC09**

The apparel, textiles and merchandising curriculum offers practical career-oriented knowledge and skills as well as theoretical foundations of marketing fashion apparel and accessories. A marketing or management minor is required.



**Major in apparel, textile and merchandising: ..... 45 hours****Required courses: ..... 21**

ATM 145 Introduction to Apparel and Textile Merchandising .....	3
ATM 235 Introductory Textiles .....	3
ATM 255 Apparel Analysis .....	3
ATM 345 Merchandise Planning and Control .....	3
ATM 355 Application of Merchandising Practices .....	3
ATM 437 Professional Seminar .....	3
ATM 487 Field Experience .....	3

**Restricted elective courses: ..... 24**

ATM 105 Integrated Arts (3)	
ATM 118 Apparel Studio (3)	
ATM 135 Cultural Study of Dress (3)	
ATM 210 Display Techniques (2)	
ATM 265 Merchandising of Interior Furnishings (3)	
ATM 302 Fashion Manufacturing Techniques (3)	
ATM 380 Fashion of the Haute Couture (3)	
ATM 390 Visual Merchandising (3)	
ATM 392 Pattern Design (3)	
ATM 404 Advanced Textiles (3)	
ATM 439 Fashion Markets (3)	
ATM 460 Tailoring (3)	
IDE 208 Introduction to Basic Design (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coh/hecr/ugrad/major/atm.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coh/hecr/ugrad/major/atm.html).

**Dietetics Major****ISIS major code: HC03**

This specialized educational program, accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association, integrates academic study with professional practice experience in a coordinated program in dietetics. Upon completion of the bachelor of science degree in dietetics, students qualify for membership in the American Dietetic Association and/or are eligible to take the Credentialing Examination for Registered Dietitians. Excellent career opportunities for dietitians are available in hospitals and other health care facilities; in community agencies; in industrial, university and school food-service programs; in business; in teaching; in research; or in private practice.

This is a second admissions program that begins in fall of the junior year. Therefore, admission to the University is not a guarantee of entry into the dietetics program. Students submit program applications by January 15 of their sophomore year for entrance into the professional phase of the program the following fall semester.

The applicant must meet the following requirements to be considered for the professional phase of the program:

1. Junior standing achieved by completing 55 or more credit hours or equivalent.
2. Minimum grade point average of 2.5.
3. Satisfactory completion ("C" grade or above) of the following courses at time of application into the program: DTC 202 Principles of Human Nutrition, DTC 301 Orientation to Dietetics, BIOL 105 Introductory Biology for Non-majors, CHEM 121-CHEM 122 General Chemistry I with lab, ECON 201 Principles of Economics I (satisfies general education requirement III.3), SOCL 250 Social Statistics I, ENGL 121 English Composition (satisfies general education requirement I.1), CTAS 121 Fundamentals of Speech (satisfies general education requirement I.2), and IHHS 226 Computers for Health and Human Services (satisfies general education requirement I.5) (or equivalent substitute).
4. DTC 211 Experimental Foods and CHEM 270 Organic Chemistry must be completed before entering the program in the fall.

Application forms that describe the requirements in more detail may be obtained from the coordinator of the dietetics program. 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 is a primary consideration in this screening procedure.

Students accepted into the dietetics program who desire to substitute courses taken at other colleges and/or universities for the 300- and 400-level dietetics courses are accepted at the discretion of the program faculty. A theoretical and/or practical examination may be required. Proven prior learning may be accepted with alternative activities assigned in substitution.

Criteria for continuance in the professional phase of the program are as follows:

1. Students receive a "C" grade or better in any required course in science and major courses after being admitted to the program.
2. A letter grade of "D" ("D+", D, or D-") in one required course automatically warns the student of difficulty and the need for academic counseling. Automatic dismissal from the dietetics program occurs when the student receives letter grades of:
  - "D's" ("D+", D, D-") in any of the following:
    - any two dietetics courses (DTC prefix), or
    - any two required science or management courses, or
    - any one dietetics course, and one required science or management course.
  - "E's" in one dietetics course or one science or management course.
3. Opportunity to continue in the dietetics program is contingent upon:
  - retaking the dietetics, science or management courses in which a letter grade of "D" was earned and receiving a final grade of at least a "C";
  - retaking the dietetics science or management courses in which a letter grade of "E" was earned and receiving a final grade of at least a "C";
  - AND readmission into the dietetics program, based on availability of an open position.
4. In preparing to assume professional careers in dietetics, students are expected to assume responsibility for their learning, to support the ethics and standards of practice of their profession, and to value honesty in the fulfillment of scholarly and professional endeavors. The department reserves the right to retain only those students who, in the judgment of the faculty, satisfy the requirements of scholarship, practice competence, and personal integrity suitable to dietetics.

**Major in dietetics: ..... 60 hours**

DTC 202 Principles of Human Nutrition .....	3
DTC 211 Experimental Foods .....	4
DTC 301 Orientation to Dietetics .....	2
DTC 311 Community Nutrition Experience .....	2
DTC 312 Community Nutrition .....	2
DTC 321 Dietetic Skills .....	2
DTC 383 Clinical Nutrition I Experience .....	2
DTC 384 Clinical Nutrition .....	2
DTC 393 Food Systems Management I Experience .....	2
DTC 394 Food Systems Management I .....	2
DTC 402 Nutrient Metabolism .....	3
DTC 412 Nutrition of the Life Cycle .....	3
DTC 435 Seminar in Dietetics .....	2
DTC 481 Ambulatory Nutrition Care Experience .....	2
DTC 482 Ambulatory Nutrition Care .....	1
DTC 483 Clinical Nutrition II Experience .....	4
DTC 484 Clinical Nutrition II .....	1
DTC 485 Clinical Nutrition III .....	5
DTC 492 Food Systems Management II Experience .....	4
DTC 494 Food Systems Management II .....	1

DTC 495 Food Systems Management III.....	5
MGMT 384 Human Resource Management .....	3
MGMT 386 Organizational Behavior and Theory .....	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coh/hecr/ugrad/major/dtc.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coh/hecr/ugrad/major/dtc.html).

## Hotel and Restaurant Management Major

ISIS major code: HC07

Hotel and restaurant management provides an interdisciplinary program that integrates principles of food and lodging management with the physical sciences, social sciences and business. A minor in management is required.

**Major in hotel and restaurant management: ..... 47 hours**

*Specialization courses: ..... 34 hours*

HRM 103 Introduction to the Hospitality Industry .....	2
HRM 180 Foundations of Food Preparation .....	4
HRM 204 Sanitation in the Hospitality Industry .....	1
HRM 376 Legal Aspects of the Hospitality Industry .....	2
HRM 430 Seminar in Hospitality Management .....	2
HRM 440 Financial Management in Hospitality Management .....	3
HRM 441 Commercial Purchasing .....	3
HRM 470 Hospitality Industry Marketing .....	3
HRM 496 Hospitality Management Internship .....	5
HECR 393 Food Systems Management I Experience .....	2
HECR 394 Food Systems Management I .....	2
HECR 494 Food Systems Management II .....	1
A total of four hours from two co-op experiences: .....	4
HRM 287/288/289 Cooperative Education in Hotel and Restaurant Management (1/2/3)	
HRM 387/388/389 Cooperative Education in Hotel and Restaurant Management (1/2/3)	

*Required specialization electives: ..... 11 hours*

Select three courses from:

GEOG 113 Foundations of Guest Service (3)	
DTC 201 Nutrition Perspectives (3)	
HRM 251 Meal Service Management (3)	
IDE 364 Facility Management (3)	
HRM 368 Hospitality Information Systems (3)	
DTC 492 Food Systems Management II Experience (4)	

Select one course from below not in the major: ..... 2-3 hours

IDE 111 Human Factors and Special Needs (3)	
IDE 221 Environmental Systems for Interiors (2)	

*General elective: ..... 2-3 hours*

Select one course from list below:

HLED 210 Standard American Red Cross First Aid (2)	
#GEOG 110 World Regions (satisfies general education requirement III.3) (3)	
RECR 100 Introduction to Recreation and Leisure (3)	
#COSC 136 Computers for the Non-specialist (satisfies general education requirement I.5) (3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/aca/colleges/coh/hecr/ugrad/major/hrm.html](http://www.emich.edu/public/catalogs/current/aca/colleges/coh/hecr/ugrad/major/hrm.html).

## Interior Design Major

ISIS major code: HC08

The interior design curriculum, which is interdisciplinary in nature, prepares students to become professional interior designers. The integrated major includes courses in fine arts, management, marketing, construction, and textiles, in addition to the courses in interior design. Creative

problem solving in the area of human-environment relationships is emphasized. The focus of the program is on the theory, processes and skills necessary for graduates of the program to reach the highest levels of professional achievement. The interior design program is accredited by the Foundation for Interior Design Education Research (FIDER).

In addition to meeting general education requirements, all students on this curriculum must complete all other courses specified. Students completing this curriculum have met the major and minor requirements for a degree. No outside minor is required.

Before students may enter studio courses at the 300 level or above in the interior design major\*, all of the following standards must be met.

1. The student must achieve a GPA of 2.70 or above as calculated from the grades in the following courses: IDE 110 Interior Design Studio I, IDE 111 Human Factors and Special Needs, IDE 120 Interior Design Studio II, IDE 121 Interior Design Materials and Components, FA 122 Two-Dimensional Design, FA 123 Drawing I, #COSC 136 Computers for the Non-specialist (satisfies general education requirement I.5), one course in English composition, one course in Physical Science, #PSY 101 General Psychology (satisfies general education requirement II.2 or II.3) or #PSY 102 General Psychology (satisfies general education requirement II.2 or II.3), CNST 201 Construction Systems, IDE 210 Interior Design Studio III, IDE 211 Lighting for Interiors, IDE 220 Interior Design Studio IV, ATM 235 Introductory Textiles, IDE 221 Environmental Systems for Interiors, FA 231 Three-Dimensional Design.
  2. The student must receive a "C-" grade or better in each of the courses listed above in 1.
  3. The student must receive a Pass (Pass/Fail) on a comprehensive design exam given during IDE 220 Interior Design Studio IV. The exam will test the student's ability to apply the design process in solving an interior design problem. The tenure-track faculty members in the interior design major will be responsible for grading the exam.
- If conditions 1, 2, and 3 above are successfully met by the student, then the student will be allowed to formally apply for condition 4.
4. The student must receive a Pass (Pass/Fail) on presentation of the portfolio. A minimum of two tenure-track faculty from interior design and two interior designers/practitioners will evaluate the presentations. Creativity, technical and presentation skills, critical thinking, and creative problem solving will be evaluated.

*\*Specifically, interior design studio courses that are 300 level and above include: IDE 310 Interior Design Studio V: Residential, IDE 312 Computers for Interior Design, IDE 320 Interior Design Studio VI: Contract, IDE 410 Interior Design Studio VII: Contract, and IDE 420 Interior Design Studio VIII: Contract.*

**Interior Design major: ..... 74 hours**

ATM 235 Introductory Textiles .....	3
CNST 201 Construction Systems .....	3
#FA 123 Drawing I (satisfies general education requirement IV.4) .....	3
FA 231 Three-Dimensional Design .....	3
IDE 110 Interior Design Studio I .....	4
IDE 111 Human Factors and Special Needs .....	3
IDE 120 Interior Design Studio II .....	3
IDE 121 Interior Design Materials and Components .....	3
IDE 210 Interior Design Studio III.....	3
IDE 211 Lighting for Interiors .....	3
IDE 220 Interior Design Studio IV .....	4
IDE 221 Environmental Systems for Interiors .....	2
IDE 310 Interior Design Studio V: Residential .....	4
IDE 311 History of Interiors: Ancient-1800 .....	2
IDE 312 Computers for Interior Design .....	3
IDE 313 Space Planning and Specifications .....	3

IDE 320 Interior Design Studio VI: Contract .....	4
IDE 321 History of Interiors: 1800-Present .....	2
IDE 410 Interior Design Studio VII: Contract .....	4
IDE 420 Interior Design Studio VIII: Contract.....	4
IDE 421 Field Experience in Interior Design .....	2
IDE 422 Professional Practice in Interior Design .....	3
MGMT 386 Organizational Behavior and Theory .....	3
MKTG 360 Principles of Marketing .....	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coh/hecr/ugrad/major/ide.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coh/hecr/ugrad/major/ide.html).

## Apparel, Textiles and Merchandising Minor

ISIS minor code: HC05

<b>Required courses:</b> .....	12
ATM 118 Apparel Studio .....	3
ATM 145 Introduction to Apparel and Textile Merchandising .....	3
ATM 235 Introductory Textiles .....	3
ATM 255 Apparel Analysis .....	3

**Restricted electives:** .....

Choose one course from each of the following areas:

### Construction skills

ATM 302 Fashion Manufacturing Techniques (3)
ATM 392 Pattern Design (3)
ATM 460 Tailoring (3)

### Methodology

ATM 390 Visual Merchandising (3)
HECR 499 Directed Study (3)

### Social-psychological-historical

ATM 135 Cultural Study of Dress (3)
ATM 380 Fashion of the Haute Couture (3)

### Textiles application

ATM 119 Early American Textiles (3)
ATM 404 Advanced Textiles (3)
ATM 265 Merchandising of Interior Furnishings (3)

**Total:** ..... 24 hours

## Human Environments Minor

ISIS minor code: HC07

<b>Required courses:</b> .....	6
IDE 111 Human Factors and Special Needs .....	3
IDE 120 Interior Design Studio II or IDE 208 Introduction to Basic Design .....	3

**Restricted electives:** .....

IDE 110 Interior Design Studio I (4)
IDE 121 Interior Design Materials and Components (3)
IDE 131 Orientation to Interior Design (1)
IDE 211 Lighting for Interiors (3)
IDE 221 Environmental Systems for Interiors (3)
IDE 269 Housing for Consumers (3)
IDE 311 History of Interiors: Ancient-1800 (2)
IDE 321 History of Interiors: 1800-Present (2)
IDE 364 Facility Management (3)

**Total:** ..... 20 hours

## Nutrition Minor

ISIS minor code: HC02

This minor benefits students enrolled in the majors of Nursing and Sports Medicine.

<b>Required courses:</b> .....	12
DTC 201 Nutrition Perspectives .....	3
DTC 211 Experimental Foods .....	4
DTC 312 Community Nutrition .....	2
DTC 412 Nutrition of the Life Cycle .....	3

**Restricted electives:** .....

DTC 402 Nutrient Metabolism, HECR 498 Directed Study, HECR 487 Field Experience, HLED 120 Healthful Living, HLED 402 Selecting Health Products and Services, HLED 420 Health and Aging
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**Total:** ..... 20 hours

## Apparel, Textiles and Merchandising Courses

**ATM 105 Integrated Arts** 3 hrs

The application of design elements and principles to human and contemporary environmental needs. Laboratory required.

**ATM 118 Apparel Studio** 3 hrs

Apparel construction using a commercial pattern. Emphasis is placed on fabric selection, fit and techniques.

**ATM 119 Early American Textiles** 3 hrs

Survey of textiles used in early history of North America; laboratory experiences allow students to develop skills in spinning wool and flax, traditional weaving, and natural dyeing.

**ATM 135 Cultural Study of Dress** 3 hrs

A study of the social, psychological and physical aspects of dress as related to culture, society and the individual.

**ATM 145 Introduction to Apparel and Textile  
Merchandising** 3 hrs

Analysis of the apparel and textiles industry from the designing to distribution through major domestic and foreign markets. Emphasis is placed on fashion trends and cycles, history of merchandising, and careers.

**ATM 177/178/179 Special Topics** 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.

*Prereq: Department permission.*

**ATM 210 Display Techniques** 2 hrs

The techniques, resources and evaluation of effective displays for use in educational, commercial and informational exhibits. Participation experiences in all phases of display work.

*Prereq: ATM 105.*

**ATM 235 Introductory Textiles** 3 hrs

The analytical study of fibers, yarns, fabrics and finishes with emphasis on the performance of apparel and interiors fabrics. Laboratory required.

**ATM 255 Apparel Analysis** 3 hrs

A study of the components of apparel at the various price and quality levels. Emphasis placed on standard terminology necessary to describe/evaluate apparel. Laboratory required.

*Prereq: ATM 235.*

**ATM 265 Merchandising of Interior Furnishings** 3 hrs

Study of fashion marketing practices, buying techniques, and promotional activities as they relate to home furnishings industries. Field trips required.

**ATM 277/278/279 Special Topics** 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.

*Prereq: Department permission.*

**ATM 302 Fashion Manufacturing Techniques** 3 hrs

Experiences and analysis of apparel and textile product production. Includes selection of commercial equipment and textiles.

*Prereq: ATM 118.*

**ATM 345 Merchandise Planning and Control** 3 hrs

Applications of merchandising mathematical concepts to buying functions and activities. Major focus on problem solving. Field trips required.

*Prereq: ATM 145.*

**ATM 355 Application of Merchandising Practices** 3 hrs

Adaptation of apparel and textile merchandising concepts (ATM 345) to computer systems. Development of processing tasks using specific merchandising information, utilizing the computer for simulation problem solving.

*Prereq: ATM 345.*

**ATM 377/378/379 Special Topics** 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.

*Prereq: Department permission.*

**ATM 380 Fashion of the Haute Couture** 3 hrs

A detailed study of 20th-century American and European fashion and its relationship to identifiable costumes of the past with emphasis on haute couture. Field trip required.

*Prereq: ATM 135 and ATM 145.*

**ATM 390 Visual Merchandising** 3 hrs

Analysis of visual media and techniques used in presentation of merchandise in a variety of settings. Laboratory participation integrates theory and practice.

*Prereq: ATM 105.*

**ATM 392 Pattern Design** 3 hrs

Principles of pattern making, and special problems in clothing construction and design.

*Prereq: ATM 118 or equivalent.*

**ATM 404 Advanced Textiles** 3 hrs

Recent technological developments in textiles; textile testing techniques.

*Prereq: ATM 235 and one laboratory science course.*

**ATM 437 Professional Seminar** 3 hrs

Exploration of professional aspects of merchandising. Emphasis on career preparation. Presentation of fashion related enterprises. Lectures by specialists. Field trips required.

*Prereq: Senior standing, ATM 355.*

**ATM 439 Fashion Markets** 3 hrs

Comprehensive overview of the world fashion markets with emphasis on their development, operation and contribution; includes a trip to one fashion-related market.

*Prereq: Department permission.*

**ATM 460 Tailoring** 3 hrs

Fundamental construction processes and special techniques applied to the construction of tailored garments; alterations and adaptations.

*Prereq: ATM 118 or equivalent.*

**ATM 477/478/479 Special Topics** 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.

*Prereq: Department permission.*

**ATM 487 Field Experience** 3 hrs

Supervised field experiences working with family social agencies and/or businesses in the area of specialization emphasizing professional competencies and self-evaluation. Sections of course offered for specialization areas as needed. International students need a work permit before registration.

*Prereq: Department permission-senior standing.*

**Dietetics Courses****DTC 177/178/179 Special Topics** 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.

*Prereq: Department permission.*

**DTC 201 Nutrition Perspectives** 3 hrs

Application of nutrition concepts and recommendations for health maintenance. *Not open to students who take DTC 202, DTC 203, or DTC 204.*

**DTC 202 Principles of Human Nutrition** 3 hrs

Study of functions, sources, digestion, absorption and metabolism of nutrients. Introduction to nutrient needs during physiological stages of the life cycle. *Open to dietetics-intent majors. Not open to students who take DTC 201, DTC 203, or DTC 204.*

*Prereq: CHEM 121, CHEM 122.*

**DTC 203 Nutrition for Health Professionals** 3 hrs

Study of functions, digestion, absorption and metabolism in health and disease. Application of nutrition principles in provision of care to clients. *For nursing majors.*

*Prereq: CHEM 120. Coreq.: ZOO 202*

**DTC 204 Sports Nutrition** 3 hrs

Study of sources, functions, digestion, absorption and metabolism of nutrients. Emphasis on diet in athletic training and exercise science. *Open only to sports medicine majors.*

*Prereq: CHEM 120.*

**DTC 211 Experimental Foods** 4 hrs

Nature and reactions of food explained in terms of chemical composition, microbial flora and manipulative practices.

*Prereq: CHEM 120 or CHEM 121-CHEM 122.*

**DTC 277/278/279 Special Topics** 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.

*Prereq: Department permission.*

**DTC 301 Orientation to Dietetics** 2 hrs

Orientation to dietetics profession by exploring its roles in the health care system, examining the different facets and specializations of the profession, and investigating future trends.

*Coreq/prereq: DTC 202.*

**DTC 311 Community Nutrition Experience** 2 hrs

Supervised practice experiences in various community nutrition settings, with emphasis on nutrition education techniques and community organization processes.

*Coreq: DTC 312.*

**DTC 312 Community Nutrition** 2 hrs

Emphasis on nutrition education theories and techniques. Exploration of nutrition programs of federal, state and local agencies. Assessing, planning, implementing, and evaluating nutrition programs in various community settings.

*Prereq: DTC 202.*



- DTC 321 Dietetic Skills** 2 hrs  
Principles of basic skills of interviewing and counseling techniques. Emphasis on nutritional assessment and use of medical terminology.  
*Prereq: DTC 301.*
- DTC 377/378/379 Special Topics** 1/2/3 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*
- DTC 383 Clinical Nutrition I Experience** 2 hrs  
Supervised practice experiences in the clinical nutrition professional environment. Emphasis on nutrition assessment utilizing a review of systems approach.  
*Coreq: DTC 384.*
- DTC 384 Clinical Nutrition** 2 hrs  
Introduction to clinical nutrition with emphasis on the delivery of nutrition support in conditions of hypermetabolism, gastrointestinal and endocrine systems disorders. *Open only to dietetics students.*  
*Prereq: DTC 202, DTC 321, and CHEM 451. Coreq.: ZOOL 326*
- DTC 393 Food Systems Management I Experience** 2 hrs  
Application of basic components of an operating quantity food service facility. Supervised practice experiences. *Open only to dietetics majors.*  
*Prereq: DTC 211. Coreq: DTC 394.*
- DTC 394 Food Systems Management I** 2 hrs  
Introduction to food systems management with emphasis on sanitation, safety, equipment selection and operation, food purchasing, receiving and storage, and personnel management. *Open only to dietetics majors.*  
*Prereq: DTC 211, MGMT 386.*
- DTC 402 Nutrient Metabolism** 3 hrs  
Biochemical and metabolic functions of nutrients with emphasis on cellular reactions and their relationship to health and disease.  
*Prereq: DTC 201 or DTC 202. Coreq: ZOOL 326.*
- DTC 412 Nutrition of the Life Cycle** 3 hrs  
Emphasis on nutrient needs and influencing factors for each of the physiological stages of the life cycle.  
*Prereq: DTC 201, DTC 202, DTC 203 or DTC 204.*
- DTC 435 Seminar in Dietetics** 2 hrs  
Analysis and application of research topics and techniques as they apply to the field of dietetics.  
*Prereq: Senior dietetics student.*
- DTC 477/478/479 Special Topics** 1/2/3 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*
- DTC 481 Ambulatory Nutrition Care Experience** 2 hrs  
Supervised practice experiences in various ambulatory care settings. *Open only to dietetics majors.*  
*Coreq: DTC 482.*
- DTC 482 Ambulatory Nutrition Care** 1 hr  
Aspects of nutrition care applied to ambulatory care settings including the workplace and long term-care facilities. Emphasis on marketing strategies, consultive practice areas, health care regulations, and payment mechanisms in nutrition care.  
*Prereq: DTC 312 and DTC 384. Coreq: DTC 484.*
- DTC 483 Clinical Nutrition II Experience** 4 hrs  
Supervised practice experiences in the clinical nutrition professional environment. *Open only to dietetics majors.*  
*Coreq: DTC 484.*
- DTC 484 Clinical Nutrition II** 1 hr  
Development, implementation and evaluation of nutritional care plans for individuals requiring modified diets for disease intervention. *Open only to dietetics students.*  
*Prereq: DTC 384.*
- DTC 485 Clinical Nutrition III** 5 hrs  
Formulation, implementation and evaluation of nutritional care plans for individuals with abnormal nutrient metabolism. Supervised practice experiences. *Open only to dietetics students.*  
*Prereq: DTC 483 and DTC 484.*
- DTC 492 Food Systems Management II Experience** 4 hrs  
Principles of food production procedures emphasizing financial and quality controls in institutional food-service systems. Supervised practice experiences. *Open only to dietetics majors.*  
*Prereq: DTC 393, DTC 394. Coreq: DTC 494.*
- DTC 494 Food Systems Management II** 1 hr  
Application of supervisory processes to food service systems with emphasis on cost and quality control in food production and labor management. *Open only to dietetics students.*  
*Prereq: DTC 393, DTC 394, MGMT 384, and MICR 328.*
- DTC 495 Food Systems Management III** 5 hrs  
Administrative functions of food service departments such as assessing, planning, decision making, evaluating and training. Communication, stress control and behavior management. Supervised practice experiences. *Open only to dietetics students.*  
*Prereq: DTC 494.*
- Human, Environmental and Consumer Resources Courses**
- HECR 177/178/179 Special Topics** 1/2/3 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*
- HECR 277/278/279/280 Special Topics** 1/2/3/4 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*
- HECR 287/288/289 Cooperative Education in HECR** 1/2/3 hrs  
Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. Offered on credit/no credit basis only.  
*Prereq: Approval of the cooperative education office and department permission.*
- HECR 377/378/379 Special Topics** 1/2/3 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*
- HECR 387/388/389 Cooperative Education in HECR** 1/2/3 hrs  
Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. Offered on credit/no credit basis only.  
*Prereq: Approval of the cooperative education office and department permission.*
- HECR 393 Food Systems Management I Experience** 2 hrs  
Application of basic components of an operating quantity food service facility. Supervised practice experiences. *Open only to dietetics majors.*  
*Prereq: DTC 211. Coreq: HECR 394.*

**HECR 394 Food Systems Management I** 2 hrs  
Introduction to food systems management with emphasis on sanitation, safety, equipment selection and operation, food purchasing, receiving and storage, and personnel management. *Open only to dietetics majors.*  
*Prereq: DTC 211, MGMT 386.*

**HECR 492 Food Systems Management II Experience** 4 hrs  
Principles of food production procedures emphasizing financial and quality controls in institutional food-service systems. Supervised practice experiences. *Open only to dietetics majors.*  
*Prereq: HECR 393, HECR 394. Coreq: HECR 494.*

**HECR 494 Food Systems Management II** 1 hr  
Application of supervisory processes to food service systems with emphasis on cost and quality control in food production and labor management. *Open only to dietetics students.*  
*Prereq: HECR 393, HECR 394, MGMT 384, and MICR 328.*

**HECR 477/478/479/476 Special Topics** 1/2/3/4 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*

**HECR 497/498/499 Directed Study** 1/2/3 hrs  
Opportunity for qualified senior students to carry on an intensive study or project in their area of specialization.  
*Prereq: Department permission.*

### Hotel and Restaurant Management Courses

**HRM 103 Introduction to the Hospitality Industry** 2 hrs  
Orientation to the lodging and food-service industry by tracing the industry's growth and development; reviewing the organization of lodging, food service, and tourism operations; and by focusing on industry opportunities and future trends.

**HRM 177/178/179 Special Topics** 1/2/3 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*

**HRM 180 Foundations of Food Preparation** 4 hrs  
Study of basic food preparation including principles of food selection, storage and preparation. Includes sanitation issues, food acceptance factors, food regulations, and the recognition of quality standards.  
*Prereq: CHEM 115 or high school chemistry.*

**HRM 204 Sanitation in the Hospitality Industry** 1 hr  
Management of basic sanitation in food-service and lodging facilities. Meets specifications required for National Institute for the Food Service Industry certification.

**HRM 251 Meal Service Management** 3 hrs  
Theories, principles and skills for food and beverage service in institutional, commercial and resort properties. Supervisory techniques and training styles effective for food service.

**HRM 277/278/279 Special Topics** 1/2/3 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*

**HRM 287/288/289 Cooperative Education in Hotel and Restaurant Management** 1/2/3 hrs  
Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. Offered on credit/no credit basis only.  
*Prereq: Approval of the cooperative education office and department permission.*

**HRM 368 Hospitality Information Systems** 3 hrs  
A systematic approach to front office procedures including record keeping, the reservation processes, collection procedures and customer relations.  
*Prereq: COSC 136 or IHHS 226.*

**HRM 376 Legal Aspects of the Hospitality Industry** 2 hrs  
Introduction to the rights and responsibilities that the law grants to or imposes upon hospitality managers. Illustration of possible consequences of failure to comply with legal obligations.  
*Prereq: Three courses in major.*

**HRM 377/378/379 Special Topics** 1/2/3 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*

**HRM 410 Human Resource Issues in the Hospitality Industry** 3 hrs  
Hotel and restaurant industry issues related to the administration of personnel with emphasis on strategies for successful recruitment, employment and retention of employees, particularly 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.  
*Prereq: MGMT 384.*

**HRM 430 Seminar in Hospitality Management** 2 hrs  
Current external topics influencing the internal operation of a food service or hospitality facility. Participation in professional and community projects.  
*Prereq: Senior hospitality management major, HRM 496 (or coreq).*

**HRM 440 Financial Management in Hospitality Management** 3 hrs  
Techniques used by hospitality managers to control food, equipment, labor and operating costs. Purchasing, labor and pilferage controls and fiscal management.  
*Prereq: DTC 394*

**HRM 441 Commercial Purchasing** 3 hrs  
Study of principles and techniques applicable to purchasing with emphasis on selection and specification requirements for food, supplies, equipment and contract services.  
*Coreq: DTC 394*

**HRM 470 Hospitality Industry Marketing** 3 hrs  
Basic knowledge for developing, implementing and evaluating strategic marketing plans for hospitality properties. Includes forecasting procedures, needs assessments and presentation formats.  
*Prereq: DTC 394 and MKTG 360.*

**HRM 477/478/479 Special Topics** 1/2/3 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*

**HRM 387/388/389 Cooperative Education in Hotel and Restaurant Management** 1/2/3 hrs  
Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. Offered on credit/no credit basis only.  
*Prereq: Approval of the cooperative education office and department permission.*

**HRM 496 Hospitality Management Internship** 5 hrs  
Practical experience in managing a hospitality operation including assessing, planning, implementing, evaluating and training.  
*Prereq: Senior hospitality management major.*

### Interior Design Courses

**IDE 110 Interior Design Studio I** 4 hrs  
Introduction to technical drawing techniques, interior construction processes, and construction materials used in interior design. Emphasis on graphic communication.  
*Prereq: Interior design majors only.*

**IDE 111 Human Factors and Special Needs** 3 hrs  
Introduction to the principles of ergonomics and anthropometrics as they influence the design of interior environments. Emphasis on how human factors and special-user needs impact interior design.

**IDE 120 Interior Design Studio II** 3 hrs  
Introduction to interior design theory, philosophy and process. Emphasis on creativity, design analysis, programming, concept development, space planning, and communication skills for introductory-level residential and contract designs.  
*Prereq: IDE 110.*

**IDE 121 Interior Design Materials and Components** 3 hrs  
Investigation of characteristics, properties, and uses of materials and components specified by the interior designer. Emphasis on interior construction materials and components, surfacing materials, and furnishing materials.

**IDE 131 Orientation to Interior Design** 1 hr  
Introduction to the interior design field with a focus on specialization and career management.

**IDE 177/178/179 Special Topics** 1/2/3 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*

**IDE 208 Introduction to Basic Design** 3 hrs  
Application of the basic principles and concepts of design as they pertain to the relationship between contemporary human needs and environmental needs. Color theory; functional and creative interior design. Non-majors only.

**IDE 210 Interior Design Studio III** 3 hrs  
Development of advanced interior design graphic presentation skills. Emphasis on delineation, axonometric and perspective drawing, and rendering techniques.  
*Prereq: FA 122, FA 123, and a minimum grade of 1.7 in IDE 120.*

**IDE 211 Lighting for Interiors** 3 hrs  
Introduction to lighting design for interior environments with emphasis on lighting fundamentals, lighting design process and methods, and the physiological and psychological effects of light.

**IDE 220 Interior Design Studio IV** 4 hrs  
Execution of design problems using design processes to integrate both physiological and socio-psychological user needs with the creative and functional design of interior environments. Emphasis on analysis, synthesis, creativity, and presentation of three-dimensional solutions to intermediate-level residential and contract design problems.  
*Prereq: IDE 111, IDE 121, IDE 210, IDE 211, FA 231. Prereq or concurrent: CNST 201, IDE 221, ATM 235.*

**IDE 221 Environmental Systems for Interiors** 2 hrs  
Introduction to acoustics, noise control, climate control, plumbing and electrical systems in interiors. Emphasis on environmental systems principles necessary for the solution of interior design problems.

**IDE 269 Housing for Consumers** 3 hrs  
Consumer housing as it relates to social, psychological, legislative and economic conditions for individuals and families in society.  
*Prereq: Sophomore standing.*

**IDE 277/278/279 Special Topics** 1/2/3 hrs  
An experimental course designed to investigate specific topics of concern in specialization areas.  
*Prereq: Department permission.*

**IDE 310 Interior Design Studio V: Residential** 4 hrs  
Application of the design process in solving advanced residential design problems focusing on physiological, socio-psychological, functional, and aesthetic elements, and their relationship to user needs. Emphasis on medium-scale contract design problems.  
*Prereq: Meet criteria for enrollment in 300-level interior design studio courses. Department permission.*

**IDE 311 History of Interiors: Ancient-1800** 2 hrs  
Chronological survey of interior design from ancient times through the mid-19th century. Emphasis on design, function, construction and evolution of interior environments and the sociological, psychological and cultural factors that influenced historical interiors, furniture, accessories and ornamental design.  
*Prereq: Junior standing or department permission.*

**IDE 312 Computers for Interior Design** 3 hrs  
Introduction to the use of computers in interior design. Emphasis on computer-aided design.  
*Prereq: COSC 136. Meet criteria for enrollment in 300-level interior design studio courses. Department permission.*

**IDE 313 Space Planning and Specifications** 3 hrs  
Space planning and specification techniques for interiors. Emphasis on corporate standards for furniture and finishes, CSI specifications format, performance standards for interior finishes and materials, and the code search process.  
*Prereq: IDE 110 or CNST 228.*

**IDE 320 Interior Design Studio VI: Contract** 4 hrs  
Application of the design process to contract design focusing on physiological, socio-psychological, functional, and aesthetic elements, and their relationship to user needs. Emphasis on medium-scale contract design problems.  
*Prereq: IDE 310, IDE 312, IDE 313.*

**IDE 321 History of Interiors: 1800-Present** 2 hrs  
Chronological survey of interior design from the mid-19th century through the present. Emphasis on design, function, construction and evolution of interiors and the sociological, psychological and cultural factors that influence interior environments.  
*Prereq: Junior standing or department permission.*

**IDE 364 Facility Management** 3 hrs  
An examination of principles for coordinating the physical work place with the people and work of the organization. Integrates the principles of business administration, architecture, and the behavioral and engineering sciences.  
*Prereq: Two courses in major.*

**IDE 377/378/379 Special Topics**

1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.

*Prereq: Department permission.*

**IDE 410 Interior Design Studio VII: Contract**

4 hrs

Application of the design process in solving advanced contract design problems in design specialization areas, including historic preservation, restoration and adaptive reuse. Emphasis on physiological, socio-psychological, functional, and aesthetic elements, and their relationship to user needs.

*Prereq: A minimum grade of 1.7 in each of the following courses: IDE 311, IDE 320, IDE 321.*

**IDE 420 Interior Design Studio VIII: Contract**

4 hrs

Application of the design process for the comprehensive solution of large scale, complex, contract design problems focusing on physiological, socio-psychological, functional, and aesthetic elements, and their relationship to user needs.

*Prereq: A minimum grade of 1.7 in each of the following courses: MGMT 386, IDE 410.*

**IDE 421 Field Experience in Interior Design**

2 hrs

Supervised work experience in the interior design field. Emphasis on professional competency, professional ethics and self-evaluation.

*Prereq: A minimum grade of 1.7 in IDE 410.*

**IDE 422 Professional Practice in Interior Design**

3 hrs

Examination of business principles and practices as applied in the interior design field. Emphasis on marketing interior design services, managing interior design firms, and managing interior design projects.

*Prereq: A minimum grade of 1.7 in each of the following: MKTG 360, MGMT 386.*

**IDE 469 Strategic Planning and Research for Facility****Management**

3 hrs

An introduction to strategic planning and research techniques in facility management with an emphasis on site and interior environment needs and evaluation.

*Prereq: IDE 364.*

**IDE 477/478/479 Special Topics**

1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.

*Prereq: Department permission.*

# Nursing

Web site: [www.emich.edu/public/nur/index.html](http://www.emich.edu/public/nur/index.html)

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**Assistant Professors:** Peggy Alford-Trewn, Virginia Lan, Sandra Lee Nelson, Patricia Nunn, Nancy Prince, Larry Rankin, Martha Tanisala, Michael Williams, Tsu Yin Wu

**Degree**

Bachelor of Science in Nursing

**Program of Study****Curriculum:**

Nursing

Admission to the University: indication of an intent to enter the nursing curriculum does not guarantee admission to the nursing program. Admission to the nursing program requires a separate application process.

Prospective students should request an application from the Admissions Office, 401 Pierce Hall, early in their freshman year. The application will specify exact requirements, deadline dates, and expected notification times.

Students are eligible for consideration for selection into the nursing program upon completion of the following prerequisite courses with a 2.0 ("C") or better: #PSY 101 General Psychology (satisfies general education requirement II.2 or II.3), either #SOCL 105 Introductory Sociology (satisfies general education requirement III.3) or #ANTH 135 Introduction to Cultural Anthropology (satisfies general education requirement III.3), CHEM 120 Fundamentals of Organic and Biochemistry, #ENGL 121 English Composition (satisfies general education requirement I.1) or equivalent, DTC 203 Nutrition for Health Professionals, ZOO 201 Human Anatomy and Physiology I, ZOO 202 Human Anatomy and Physiology II, and EDPS 325 Life Span Human Growth and Development. Required prerequisite courses are subject to change.

Students should plan carefully for the demanding nature of the professional part of the nursing program and the extensive clinical hours required. This professional segment requires six sequential semesters of work. Students are discouraged from working more than 16 hours per week.

Because of the rapidly changing nature of the health care field, it is necessary that graduates have current professional nursing skills and knowledge in order to practice successfully. Therefore, the following policies have been established:

Once admitted to the EMU nursing program, students must complete all nursing (NURS) courses, including MICR 328 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 Department of Nursing.

The University may give credit for nursing courses taken at another college/university; however, the department reserves the right to make the final decision on course substitution based on examination of course materials.

**Academic and professional integrity**

Students are expected to assume responsibility for their learning, to support the ethics and goals of their 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 Nursing Department recognizes its responsibilities to the public and the nursing profession. Students and faculty must promote academic and professional integrity and take action when a violation of such integrity occurs. **The department reserves the right to retain only those students who, in the judgment of the faculty, satisfy the requirements of scholarship, clinical competence, 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 health agencies, and home health care agencies. **Students are expected to provide their own transportation to clinical agencies.**

Nursing students are assessed \$15 per credit hour on all clinical laboratory courses. A portion of these funds goes to the department to help defray the cost of updating, replacing and maintaining equipment and supplies used in the classroom laboratories (skills lab, health assessment and computer labs).

Following receipt of the bachelor of science in nursing degree (BSN), students are eligible to sit for the national nursing licensure examination (NCLEX-RN).

This nursing program is approved by the State of Michigan Board of Nursing. It is accredited by the National League for Nursing Accrediting Commission, and has preliminary approval of the Commission on Collegiate Nursing Education.

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 nurse students must apply to and be accepted by the University. **In addition**, registered nurse students must:

1. meet with RN/BSN coordinator
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. This license represents having passed the National Council Licensing examination for which 30 credits of nursing course work will be awarded.
4. show submission of a TOEFL score of 500/173 (paper/computer) or above for students for whom English is a second language. A MELAB test is also acceptable.
5. show completion by students of prerequisite courses to enroll in any given course.

All information related to academic and professional integrity and clinical learning experiences also apply to RN/BSN completion students.

The Nursing Department offers courses for registered nurses at off-campus sites. These sites are Jackson, Monroe and Livonia.

**Nursing Major**

**ISIS major code: NU01**

This curriculum leads to the Bachelor of Science in Nursing (B.S.N.) degree and requires the following courses to complete the 124 credit 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 Nursing Department for the most accurate information.

**Required nursing courses for generic students: ..... 60 hours**  
 NURS 207 Critical Thinking in Nursing ..... 1

NURS 208 The Art and Science of Nursing I ..... 2  
 NURS 209 The Art and Science of Nursing I Laboratory .... 3  
 NURS 220 Health Assessment ..... 3  
 NURS 250 The Art and Science of Nursing II ..... 2  
 \*NURS 251 The Art and Science of Nursing II  
     Laboratory ..... 3  
 NURS 260 Pathophysiology ..... 4  
 NURS 270 Pharmacology ..... 3  
 NURS 304 Nursing Care of Childbearing Families ..... 2  
 \*NURS 305 Nursing Care of Childbearing Families  
     Laboratory ..... 3  
 NURS 306 Nursing Care of Childrearing Families ..... 2  
 \*NURS 307 Nursing Care of Childrearing Families  
     Laboratory ..... 3  
 NURS 308 A Theoretical Basis for Nursing Care of  
     Childbearing Families, Childrearing Families, and  
     Groups ..... 1  
 NURS 330 Adult Health Nursing I ..... 2  
 \*NURS 331 Adult Health Nursing I Laboratory ..... 3  
 NURS 350 Psychiatric/Mental Health Nursing ..... 2  
 \*NURS 351 Psychiatric/Mental Health Nursing  
     Laboratory ..... 3  
 NURS 372 Nursing Research ..... 2  
 NURS 404 Adult Health Nursing II ..... 2  
 \*NURS 405 Adult Health Nursing II Laboratory ..... 3  
 NURS 420 The Evolution of Professional Nursing ..... 2  
 NURS 430 Health Care of Vulnerable Populations ..... 2  
 NURS 450 Community Health Nursing ..... 2  
 \*NURS 451 Community Health Nursing Practice ..... 3  
 NURS 460 Nursing Leadership and Management ..... 2

*\*A lab fee of \$15 per credit hour is assessed on each clinical laboratory course.*

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coh/nurs/ugrad/major/nurs.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coh/nurs/ugrad/major/nurs.html).

**Nursing Major—B.S.N. Completion**

**ISIS major code: NU03**

**Required nursing courses for registered nurse students: ..... 58**  
 NURS 220 Health Assessment ..... 3  
 NURS 260 Pathophysiology ..... 4  
 NURS 270 Pharmacology ..... 3  
 NURS 308 A Theoretical Basis for Nursing Care of  
     Childbearing Families, Childrearing Families, and  
     Groups ..... 1  
 NURS 310 Concepts of Professional Practice ..... 2  
 NURS 340 Community Mental Health Nursing ..... 1  
 \*NURS 341 Community Health Nursing ..... 3  
 NURS 420 The Evolution of Professional Nursing ..... 2  
 NURS 430 Health Care of Vulnerable Populations ..... 2  
 NURS 450 Community Health Nursing ..... 2  
 \*NURS 451 Community Health Nursing Practice ..... 3  
 NURS 460 Nursing Leadership and Management ..... 2  
 NCLEX exam ..... 30

*\*A lab fee of \$15 per credit hour is assessed on each clinical laboratory course.*

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/coh/nurs/ugrad/major/nurscomp.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/coh/nurs/ugrad/major/nurscomp.html).

## Nursing Education Courses

### NURS 177/178/179 Special Topics

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

### NURS 207 Critical Thinking in Nursing

1 hr

Provides exploration of critical thinking in the professional domain, and its application to the nursing process.

*Prereq: Admission to the nursing program. Coreq: NURS 208, NURS 209, NURS 220.*

### NURS 208 The Art and Science of Nursing I

2 hrs

Presents an introduction to professional nursing theory, practice and research.

*Prereq: Admission to the nursing program. Coreq: NURS 207, NURS 209, NURS 220.*

### NURS 209 The Art and Science of Nursing I Laboratory

3 hrs

This companion course to NURS 207 and NURS 208 provides laboratory/clinical practice in nursing care of adults in predictable states of disharmony and harmony.

*Prereq: Admission to the nursing program. Coreq: NURS 207, NURS 208, NURS 220, MICR 328.*

### NURS 220 Health Assessment

3 hrs

Familiarizes students with health history-taking and physical examination techniques. Laboratory sessions provide opportunities for doing assessments under the guidance of the nursing faculty. Lecture: Two hours per week. Laboratory: Two hours per week.

*Prereq: Admission to the nursing program. RN/BSN students may register for this course prior to admission to the program.*

### NURS 250 The Art and Science of Nursing II

2 hrs

Continues the development of knowledge and skills basic to nursing care of adults in predictable states of disharmony and harmony.

*Prereq: NURS 207, NURS 208, NURS 209, NURS 220. Coreq: NURS 251, MICR 328, NURS 260, NURS 270.*

### NURS 251 The Art and Science of Nursing II Laboratory

3 hrs

Students apply the concepts learned in theory and laboratory in providing care to culturally diverse adult clients who are in predictable states of harmony and disharmony.

*Prereq: NURS 207, NURS 208, NURS 209, NURS 220. Coreq: NURS 250, MICR 328, NURS 260, NURS 270.*

### NURS 260 Pathophysiology

4 hrs

The dysfunctions created by major physical illnesses, theories of causation, and signs and symptoms of the more usual syndromes.

*Prereq: Admission to the nursing program/permission of the department.*

### NURS 270 Pharmacology

3 hrs

The fundamental principles of pharmacology including the action of drug groups on the human body and how drugs are administered, metabolized and excreted.

*Prereq: Admission to the nursing program/permission of the department.*

### NURS 277/278/279 Special Topics

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

### NURS 304 Nursing Care of Childbearing Families

2 hrs

Focuses on maternal-newborn nursing within a family-centered approach. The course encompasses the entire childbearing process, from precon-

ception planning through pregnancy, birth and the postpartum period. Students use a scientific knowledge base and select theories (e.g., family, nursing, systems, developmental, ethical and coping/stress/adaptation) to promote harmony within the context of the childbearing families in predictable and less-predictable health states with diverse populations.

*Prereq: Completion of sophomore-level nursing courses, MICR 328. Coreq: NURS 305, NURS 308.*

### NURS 305 Nursing Care of Childbearing Families

Laboratory

3 hrs

Focuses on the clinical application of maternal-newborn nursing theory and practice with selected maternity clients and their newborns. Clinical experiences will occur in prenatal, intrapartum and postpartum settings of community hospitals.

*Prereq: Completion of sophomore-level nursing courses, MICR 328. Coreq: NURS 304, NURS 308.*

### NURS 306 Nursing Care of Childrearing Families

2 hrs

Focuses on assisting students to learn nursing care for children and their families in predictable and less-predictable health phases of disharmony and harmony. Children and their families at different developmental ages, having altered health and well states, and in different clinical settings will be examined to promote harmony.

*Prereq: Completion of sophomore-level nursing courses, MICR 328. Coreq: NURS 307, NURS 308.*

### NURS 307 Nursing Care of Childrearing Families

Laboratory

5 hrs

Focuses on the clinical application of nursing knowledge from NURS 306 to the care of children and their families in various clinical settings.

*Prereq: Completion of sophomore-level nursing courses, MICR 328. Coreq: NURS 306, NURS 308.*

### NURS 308 A Theoretical Basis for Nursing Care of

#### Childbearing Families, Childrearing Families, and Groups

1 hr

Focuses on students gaining an understanding of theories both in nursing and related disciplines in families and groups, and the impact of stress and illness for this population.

*Prereq: Completion of sophomore-level nursing courses or departmental permissions.*

### NURS 310 Concepts of Professional Practice

2 hrs

Explores the use of critical thinking, and the concepts upon which professional nursing is based. Various nursing theories are introduced and applied to the concepts of the individual, family, groups and community. Lecture: Two hours per week. RN/BSN students may register for this course prior to admission to the program.

### NURS 330 Adult Health Nursing I

2 hrs

Focuses on caring for adult clients within families with predictable medical-surgical problems, both acute and chronic. The goal of the course is to provide a strong foundation of principles for the adult-health nursing care of clients from diverse populations with medical-surgical problems across the health care setting. Students will focus on the predictable phases of disharmony as well as concepts including cancer nursing, fluids and electrolytes, grieving, teaching/learning, stress and coping.

*Prereq: Completion of sophomore-level nursing courses, NURS 308, and MICR 328. Coreq: NURS 331.*

### NURS 331 Adult Health Nursing I Laboratory

3 hrs

Clinical application of nursing knowledge from NURS 330 to the care of adult clients in a variety of health care settings.

*Prereq: Completion of sophomore-level nursing courses. Coreq: NURS 308 and NURS 330.*

**NURS 340 Community Mental Health Nursing 1 hr**

This course is designed to provide the conceptual basis for professional nursing practice regarding states of disorganization and reorganization in the psychiatric/mental health care of individuals, families and groups in the community.

*Prereq:* NURS 270, NURS 310, NURS 220, EDPS 325. *Coreq:* NURS 341.

**NURS 341 Community Health Nursing 3 hrs**

This course is designed to fulfill clinical nursing requirements in community mental health nursing. Both the on-campus lab activities and the on-site clinical patient contacts offer direct experiences with diverse populations across the life span. Clinical placements are available in a variety of mental health settings located in the community.

*Prereq:* NURS 270, NURS 310, NURS 220, EDPS 325. *Coreq:* NURS 340.

**NURS 350 Psychiatric/Mental Health Nursing 2 hrs**

Designed to fulfill theory requirements in psychiatric/mental health nursing. Classroom content will cover the care of adults, children and adolescents experiencing states of disharmony and reorganization.

*Prereq:* Completion of sophomore-level nursing courses. *Coreq:* NURS 308.

**NURS 351 Psychiatric/Mental Health Nursing Laboratory 3 hrs**

Designed to fulfill clinical nursing requirements in psychiatric/mental health nursing. Clinical practice will offer direct experiences with diverse groups of children, adolescents and adults in states of disharmony and reorganization through placements in a variety of psychiatric/mental health clinical settings.

*Prereq:* Completion of sophomore-level nursing courses. *Coreq:* NURS 308.

**NURS 372 Nursing Research 2 hrs**

Analyzes existing research, and examines the potential for utilization of existing research to nursing practice. Theoretical nursing frameworks will be explored for their relevance to research and practice.

*Prereq:* Completion of sophomore-level nursing courses and departmental permission.

**NURS 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq:* Department permission.

**NURS 404 Adult Health Nursing II 2 hrs**

Includes the primary, secondary and tertiary levels of prevention for the adult client with multiple complex alterations in health status. Students will provide for continuity of care across health settings. Students will focus on acute and chronic phases of disharmony as well as concepts including stress and coping, grieving and teaching/learning that relate to reorganization.

*Prereq:* Completion of junior-level nursing courses. *Coreq:* NURS 405.

**NURS 405 Adult Health Nursing II Laboratory 3 hrs**

Clinical application of nursing knowledge from NURS 404 to the care of adult clients in a variety of health care settings.

*Prereq:* Completion of junior-level nursing courses. *Coreq:* NURS 404.

**NURS 420 The Evolution of Professional Nursing 2 hrs**

Explores the historical development of the nursing profession and current issues and trends affecting nursing and health care.

*Prereq:* Completion of junior-level nursing courses or departmental permission.

**NURS 430 Health Care of Vulnerable Populations 2 hrs**

Examines the health care needs of vulnerable populations.

*Prereq:* Completion of junior-level nursing courses, or departmental permission

**NURS 450 Community Health Nursing 2 hrs**

Focuses on the community as client. Students will learn and apply concepts from the public health sciences to the assessment, diagnosis, planning and intervention related to community health problems. Community health problems will be examined incorporating epidemiological analysis, all levels of prevention, available as well as needed health and community resources, and the role of nursing in interdisciplinary health care. Specific focus will be given to the role of the environment and its subsystems on the health and well-being of individuals, families and communities. Efforts to prioritize health care needs and set health care goals, such as Healthy People 2000, will be examined.

*Prereq:* Completion of junior-level nursing courses. *Coreq:* NURS 451.

**NURS 451 Community Health Nursing Practice 3 hrs**

The clinical course for community health nursing provides students with opportunities to apply community health nursing concepts with clients with individuals, families and aggregates. Care will be provided at all levels of prevention to persons across the life span. Care to individuals and families will be analyzed from a community or aggregate perspective.

*Prereq:* Completion of junior-level nursing courses. *Coreq:* NURS 450.

**NURS 460 Nursing Leadership and Management 2 hrs**

Students will learn and apply leadership and management concepts and theories to patient care. The health care system as well as the internal and external influences on this system will be studied.

*Prereq:* Completion of junior-level nursing courses.

**NURS 477/478/479 Special Topics 1/2/3 hrs**

Experimental courses or special topics in nursing may be offered.

*Prereq:* Department permission.

**NURS 497/498/499 Independent Study 1/2/3 hrs**

A student may work with a faculty member independently to pursue a topic of interest to the student. Independent study is a student-initiated project.

*Prereq:* Department permission.

# Social Work

Web site: [www.emich.edu/public/swk/swkhome.htm](http://www.emich.edu/public/swk/swkhome.htm)

**Wanda Bracy**

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**Professors:** Marti Bombyk, Wanda Bracy, Kaaren Strauch Brown, Elvia Krajewski-Jaime, Linda F. Kurtz, Ronald Lewis, Donald Lopnow, Harrison Y. Smith, Marjorie Ziefert

**Associate Professors:** Betty Brown-Chappell, Laura Davis, Sylvia Sims Gray, Enos Massie, Crystal Mills, Lynn Nybell, Elizabeth Oates Schuster, Marilyn Wedenoja

**Assistant Professors:** Mark Ragg, Sylvia Weinberg

The Social Work program offers students a generalist foundation of knowledge, values, and skills integral to entry level professional social work careers. It includes a fully accredited major in social work.

The department supports two student organizations, the Student Social Work Organization and a student chapter of the National Association of Black Social Workers. Members of the student organizations sponsor social activities and community service projects, serve on faculty committees and sponsor an annual student conference. All social work students are encouraged to be involved in one or both organizations.

## Degrees:

Bachelor of Science or Bachelor of Arts

## Programs of Study

### Curriculum:

Social work (professional degree)

### Minors:

Gerontology

Social work

### Supplemental Elective Programs:

Family and Children's Services Program

Health Care Services Program

## 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 University Honors Program. 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 University Honors Program.

## Advising

Advising responsibilities will be assigned to social work faculty members. Students should contact the Social Work department to set up an advising appointment. In addition:

1. All social work students should obtain a copy of the department's advising handbook titled *The Doorway to Undergraduate Social Work Education at EMU*. This handbook will be given to the student at the initial session with a social work adviser.
2. Before students enroll in the required 300- and 400-level social work courses, they must meet with a social work faculty adviser to review a variety of issues such as academic performance, class scheduling, and overall progress and development in the program. Since the class cards for the required 300- and 400-level courses are available only in the Social Work department, students must see an adviser and pick up class cards before registering.
3. Faculty advisers are available by appointment for evening advising sessions.

## Field Experience

Field experience required 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 executed during the students' senior year, either fall and winter terms or winter and spring-summer terms. Students will be in the field 16 hours per week, Tuesdays and Thursdays, for the semesters in the field placement cycle. Open only to social work majors.

Eligibility for field placement:

1. A 2.3 overall grade point average at the time of entering and during field placement (no probation).
2. At least a "C" in each required social work class.
3. Students must have completed all required social work courses through the 300 level before beginning field placement. In addition, students must have completed EDPS 325 Life Span Human Growth and Development, and PSY 360 Abnormal Psychology prior to field placement.
4. Students must receive a grade of "C" or better in their first semester field placement and practice classes (SWRK 408 Social Work Practice II, and SWRK 488 Field Experience I) to be eligible to continue in the second semester (SWRK 409 Social Work Practice III and SWRK 489 Field Experience II). Students who receive a grade of "E" in either semester of field placement (SWRK 488-SWRK 489 Field Experience I-II) must obtain special departmental permission to repeat the course.
5. A field placement application must be obtained from the social work office, completed by the student, and returned to the field placement coordinator by the date set by the field coordinator or by March at the latest if placement is desired fall/winter and by October for the following winter/spring/summer terms. Each student is required to attend an informational meeting at the announced time in the semester their field application is due. The field placement coordinator will arrange all field placements. Students may not recruit their own field placement sites.
6. Students must take field placement in consecutive semesters (i.e. fall and winter or winter and spring/summer terms). Students enrolling for the first semester of field placement (SWRK 488 Field Experience I) must take SWRK 408 Social Work Practice II concurrently. Students enrolling for the second term of field placement (SWRK 489 Field Experience II) must take SWRK 409 Social Work Practice III concurrently. In addition, students must take SWRK 405 Analysis and Change of Social Welfare Policies concurrently during one of the two semesters of field placement.
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. Academic credit for life experience and previous work experience will not be granted in lieu of field placement.
9. Students in field placement must adhere to professional standards as set forth in the Code of Ethics of the National Association of Social Workers.
10. All students should obtain and read a copy of the department field placement policies.

## Accreditation

Accreditation is by the Council on Social Work Education, the accrediting body for baccalaureate and 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.

## Family and Children's Services Program

The family and children's services program (FCSP) is a series of elective courses focusing on providing social work services to families and



children. It is intended as supplemental content for students working toward a bachelor's degree in social work and related professions, or as an educational resource available on a continuing education basis for agency staff who wish to enhance their knowledge and skills in social work with families and children. This program is not a major or minor.

In order to complete the FCSP, the student-practitioner must complete SWRK 477 Special Topics: Policies and Issues in Services to Families and select any three additional courses.

The process of selecting courses should be accomplished in consultation with a faculty adviser. Upon completion of the four courses with at least a 2.5 grade point average in the courses, the student is awarded a certificate recognizing completion of the FCSP. This certificate is not a professional credential but does document completion of focused course work.

### Health Care Services Program

The health care services program (HCSP) includes a series of elective courses that focus on the roles of social workers and other health care professionals in providing health care services. It is intended as supplemental content for students working toward bachelor's degrees in social work and related professions and as an educational resource available on a continuing education basis for agency staff who wish to enhance their knowledge and skills in social work and health care. This program is not a major or minor.

The health care services program is built on a group of four courses that are intended to provide students with an understanding of social work practice in a broad spectrum of health care settings. These courses provide both an interdisciplinary focus and an emphasis on health care and the family. In addition, students must complete any one of three options intended to prepare students for social work in medical settings, substance abuse programs or mental health settings. The student practitioner must complete a total of 12 credits.

The process of selecting courses that complement and supplement the student's interests should be done in consultation with a faculty adviser. Upon completion of the 12 credits for the HCSP with at least a 2.5 grade point average in the courses, the student is awarded a certificate recognizing completion of the HCSP. This certificate is not a professional credential but does document completion of focused course work.

## Gerontology

**Elizabeth Schuster**  
Coordinator  
416 King Hall  
734.487.2465

The gerontology minor is administered by the Social Work department in the College of Health and Human Services through an Interdisciplinary Coordinating Committee composed of faculty who are actively involved in the gerontology field. The 20-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 graduate or undergraduate students who wish to supplement their studies with a detailed knowledge of gerontology or who contemplate entering graduate 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 institutions or nursing facilities for the elderly, for community organization and social service workers, and for educators.

Advising is arranged through the program coordinator.

## Social Work Curriculum

### ISIS major code: SW01

This curriculum leads to the Bachelor of Science or the Bachelor of Arts degree. Students completing the curriculum will have met the major and minor requirements for graduation; no outside minor is required. Specific courses required to complete the designated 124 hours leading to a degree in social work are indicated by an asterisk (\*).

**Major in social work: ..... 51 hours**  
*Required courses*

\*SOCL 462 Complex Organizations ..... 3  
\*Two courses on statistics and research completed by  
taking either Option 1 or Option 2 ..... 6

#### Option 1

SOCL 341 Quantitative Methods of Social  
Research I ..... 3  
SOCL 342 Quantitative Methods of Social  
Research II ..... 3

#### Option 2

#SOCL 250 Social Statistics I (satisfies general  
education requirement I.4) ..... 3  
SOCL 304 Methods in Sociological Research ..... 3  
\*SWRK 120 Introduction to Social Work Services and Profes-  
sional Roles ..... 3  
\*SWRK 222 Social Welfare Policies and Services ..... 3  
\*SWRK 315 Theoretical Bases for Social Work Practice .... 3  
\*SWRK 317 Social Work Practice I ..... 3  
\*SWRK 360 Practice Issues with People of Color ..... 3  
\*SWRK 388 Preprofessional Practicum ..... 3  
\*SWRK 403 Practice Issues with Women ..... 3  
\*SWRK 405 Analysis and Change of Social Welfare  
Policies ..... 3  
\*SWRK 408 Social Work Practice II ..... 3  
\*SWRK 409 Social Work Practice III ..... 3  
\*SWRK 488 Field Experience I ..... 6  
\*SWRK 489 Field Experience II ..... 6

*Restricted electives: ..... 9 hours*

*Choose two courses from the following: ..... 6 hours*

#AAS 101 Introduction to African American Studies  
(satisfies general education requirement III.4 and the  
cross-cultural/international studies requirement) (3)  
AAS 221 African American Social Movements (3)  
AAS 231 Urbanization and the African American  
Community (3)  
AAS 311 The African Diaspora (3)  
AAS 351 The Social Context of African American Health (3)  
AAS 361 The African American Family (3)  
AAS 379 Special Topics: Gender, Race, and Class (3)  
AAS 441 Law in the African American Experience (3)  
#SOCL 205 Minority Women in the United States (satisfies  
general education requirement III.4 and the cross-  
cultural/international studies requirement) (3)  
#SOCL 214/ANTH 214 Racial and Cultural Minorities  
(satisfies general education requirement III.4 and the  
cross-cultural/international studies requirement) (3)  
#ANTH 233 Peoples and Cultures of Mexico (satisfies  
general education requirement III.4 and the cross-  
cultural/international studies requirement) (3)  
#ANTH 236 Peoples and Cultures of Africa (satisfies  
general education requirement III.4 and the cross-  
cultural/international studies requirement) (3)

- #ANTH 237 Indians of North America (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- ANTH 248 Peoples and Cultures of the Pacific (3)
- #CTAC 374 Intercultural Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)
- #CTAC 375 Interracial/Interethnic Communication (satisfies general education requirement I.3 and the cross-cultural/international studies requirement) (3)
- #FLAN 215 The Cultures of Mexican-Americans and Cubans in the United States (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)
- #ECON 321 Minority Workers in the Labor Market (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #HIST 305 Indians of the United States (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #HIST 315 History of Black Americans (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- HIST 317 History and Geography of Spanish America (3)
- #HIST 341 The Middle East, 1798 to the Present (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #HIST 342 North Africa, 1798 to the Present (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #HIST 348 20th-Century Africa (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- HIST 355 Latin America: Colonial Period (3)
- #HIST 356 Latin America: National Period (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #HIST 375 Modern India (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #LITR 204 Native American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)
- #LITR 260 African American Literature (satisfies general education requirement IV.2 and the cross-cultural/international studies requirement) (3)
- PSY 340 Psychological Perspectives on Prejudice and Discrimination (3)
- Choose one course from the following: ..... 3 hours
- #WMST 200 Introduction to Women's Studies (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- PSY 242 Psychology of Women (3)
- #SOCL 344/WMST 344 Sociology of Gender (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- #ANTH 355/WMST 355 Anthropology of Women (satisfies general education requirement III.4 and the cross-cultural/international studies requirement) (3)
- PLSC 365 Women and Politics (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/coh/swrk/ugrad/major/swrk.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/coh/swrk/ugrad/major/swrk.html).

## Gerontology Minor

ISIS minor code: SW02

<b>Required courses:</b> .....	<b>13-14</b>
BIOL 239 Biology of Aging .....	2
SOCL 311 Social Gerontology .....	3
PSY 323 Psychology of Human Aging .....	3
SWRK 420 Working with Aging People .....	3
GERT 488/489 Gerontology Practicum/Seminar .....	2-3

*Note: 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 of GERT 488/489.*

**Electives:** ..... **6-7**  
Students are required to complete elective requirements by choosing courses from the following three content areas:

- Psychosocial and environmental aspects of aging*
- EDPS 325 Life Span Human Growth and Development (4)
- EDPS 402 Learning in the Later Years (3)
- OCTH 403 Conditions II (3)
- PSY 551 Psychology of Death and Dying (2)
- Biological and health aspects of aging*
- IDE 111 Human Factors and Special Needs (3)
- DTC 201 Nutrition Perspectives or DTC 202 Principles of Human Nutrition (3)
- IDE 269 Housing for Consumers (3)
- RECR 310 Leisure and the Older Adult (3)
- DTC 412 Nutrition of the Life Cycle (3)
- PHED 479 Special Topics: Health and Aging (3)
- Policies and services for the aging*
- HLAD 300 Health Care Issues (2)
- HLAD 310 Administration of Health Care Organizations (3)
- ECON 327 Inequality and Economic Justice (3)
- SWRK 413 Women and Aging (3)
- SWRK 424 Social Work with Physically and Mentally Handicapped (3)
- SWRK 457 Separation, Loss, and Grief (1)
- GERT 417 Work and Retirement (2)
- GERT 518 Introduction to Dementia (2)

### Gerontology

Select from courses with a GERT prefix. (Selected 500-level courses are available with approval.)

**Total:** ..... **20 hours**

## Social Work Minor

ISIS minor code: SW01

This minor is compatible with the disciplines where the college graduate will be in a helping role with people.

<b>Required courses:</b> .....	<b>6 hours</b>
SWRK 120 Introduction to Social Work Services and Professional Roles .....	3
SWRK 222 Social Welfare Policies and Services .....	3

**Electives:** ..... **14-15 hours**  
Choose 14-15 credits selected from social work courses (SWRK).

**Total:** ..... **20-21 hours**

## Family and Children's Services Program

<b>Required courses:</b> .....	<b>27 hours</b>
SWRK 419 Family-Centered Practice .....	3
SWRK 420 Working with Aging People .....	3

SWRK 422 Specialized Services for Families with Children in Placement .....	3
SWRK 424 Social Work with Physically and Mentally Handicapped .....	3
SWRK 431 Substance Abuse .....	3
SWRK 435 Group Work with Children and Families .....	3
SWRK 460 The Law and Social Work with the Family .....	3
SWRK 465 Social Work, Sex, and the Family .....	3
SWRK 470 Supervising Staff and Volunteers .....	3

## Health Care Services Program

**Required courses:** ..... 9 hours

SWRK 419 Family-Centered Practice .....	3
SWRK 438 The Interdisciplinary Health Care Team .....	1
SWRK 439 Social Work Practice in Health Care Settings ...	3
HLAD 300 Health Care Issues .....	2

**One of the following options:** ..... 3 hours

### Medical Option

SWRK 457 Separation, Loss, and Grief (1)

### Substance Abuse Option

SWRK 431 Substance Abuse (3)

### Mental Health Option

SWRK 440 Issues in Mental Health Practice (3)

**Total:** ..... 12 hours

## Gerontology Courses

**GERT 177/178/179 Special Topics** 1/2/3 hrs

Specialized topics integral to the field of gerontology. Gerontology faculty members will select contemporary topics that are different from existing courses. Since topics change, a student may elect to take the course more than once.

*Prereq: Department permission.*

**GERT 277/278/279 Special Topics** 1/2/3 hrs

Specialized topics integral to the field of gerontology. Gerontology faculty members will select contemporary topics that are different from existing courses. Since topics change, a student may elect to take the course more than once.

*Prereq: Department permission.*

**GERT 377/378/379 Special Topics** 1/2/3 hrs

Specialized topics integral to the field of gerontology. Gerontology faculty members will select contemporary topics that are different from existing courses. Since topics change, a student may elect to take the course more than once.

*Prereq: Department permission.*

**GERT 404 Gerontology Interdisciplinary Seminar** 3 hrs

*Prereq: Senior standing, completion of two courses in the gerontology minor or equivalent.*

**GERT 417 Work and Retirement** 2 hrs

Issues on the historical aspect of retirement, the realities of retirement, the necessity of preparing individuals for this significant part of their lifespan, and work past the age of 65.

*Prereq: Junior/senior or graduate student.*

**GERT 477/478/479 Special Topics** 1/2/3 hrs

Content will change from semester to semester. An experimental course for subject matter not yet provided in other program offerings. Students may elect this course more than once, provided different topics are covered.

*Prereq: Department permission.*

**GERT 488/489 Gerontology Practicum/Seminar** 2/3 hrs

Integration of knowledge and skills gained from other gerontology courses and life experiences. Insights on aging available from the humanities disciplines.

*Prereq: Senior standing, completion of two courses in the gerontology minor or advising coordinator's permission.*

**GERT 497/498/499 Independent Study** 1/2/3 hrs

Directed study in areas not provided in other course offerings or advanced study in areas of special interest to the student.

*Prereq: Department permission.*

## Social Work Courses

**SWRK 120 Introduction to Social Work Services and Professional Roles** 3 hrs

An overview of the social work profession including its philosophy, values, professional roles, current trends, and models in varied practice arenas as criminal justice, mental health, child and family services, public welfare services, and medical and industrial settings.

**SWRK 177/178/179 Special Topics** 1/2/3 hrs

Specialized topics integral to contemporary social work practice. Social work faculty members will select contemporary topics that are different from existing social work courses. Since topics change, a student may take the course more than once.

*Prereq: SWRK 120.*

**SWRK 222 Social Welfare Policies and Services** 3 hrs

A survey of welfare institutions and policies in their historical and modern contexts. American social welfare services as related to the economic, political and sociocultural conditions, and prevailing ideologies.

*Prereq: SWRK 120.*

**SWRK 251 Self Assessment and Development for Social Work** 1 hr

An experimental course helping students to self-assess their personal preparation for the social 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.

*Coreq: SWRK 254.*

**SWRK 254 The Social Work Profession and Social Service Policies** 4 hrs

This course is an overview of the development of the social work profession, its distinguishing features, including social work values and ethics, and the historical development of social welfare policies and programs. In addition, students will learn about social work roles and settings. This course is designed for students who intend to be social work majors. *This course must be taken concurrently with SWRK 251. It is not open to students who have already completed SWRK 120 and/or SWRK 222.*

**SWRK 277/278/279 Special Topics** 1/2/3 hrs

Specialized topics integral to contemporary social work practice. Social work faculty members will select contemporary topics that are different from existing social work courses. Since topics change, a student may take the course more than once.

*Prereq: Department permission.*

**SWRK 287 Cooperative Education in Social Work** 3 hrs

Employment for pay in a work setting chosen to provide practical experience related to social work. The cooperative education sequence is alternating with full-time attendance at the University. Students who wish to substitute a cooperative education course for the practicum compo-

ment of SWRK 388 must enroll in SWRK 388 concurrently with one of the cooperative courses. Cooperative education does not substitute for the field placement courses required of all social work majors.

*Prereq: SWRK 120, sophomore standing, approval of the cooperative education office, and department permission.*

**SWRK 315 Theoretical Bases for Social Work Practice 3 hrs**

Integrating, supplementing, and translating into social work practice students' knowledge of human beings and their social environments. The purposes for which the social work professional intends to use the knowledge and the values that form the base of professional practice.

*Prereq: SWRK 120, SWRK 222, PSY 101, SOCL 105, and EDPS 325; or department permission. ANTH 135 and PSY 360 recommended.*

**SWRK 317 Social Work Practice I 3 hrs**

The first course in a sequence of social work practice, designed to prepare the student for field experience. Relationship building, information gathering and preliminary assessment, and contracting. Must be taken concurrently with SWRK 388.

*Prereq: SWRK 120, SWRK 222, and SWRK 315. Nonsocial work majors must have department permission.*

**SWRK 360 Practice Issues with People of Color 3 hrs**

Examines social work methodology and techniques in the development and delivery of social work services to people of color. Focuses on expanding the range of perception, thought, and practice skills relative to race and culture. Personal values toward racial and cultural variation are examined in the context of social work values and practice.

**SWRK 377/378/379 Special Topics 1/2/3 hrs**

Specialized topics integral to contemporary social work practice. Social work faculty members will select contemporary topics that are different from existing social work courses. Since topics change, a student may take the course more than once.

*Prereq: Department permission.*

**SWRK 387 Cooperative Education in Social Work 3 hrs**

Employment for pay in a work setting chosen to provide practical experience related to social work. The cooperative education sequence is alternating with full-time attendance at the University. Students who wish to substitute a cooperative education course for the practicum component of SWRK 388 must enroll in SWRK 388 concurrently with one of the cooperative courses. Cooperative education does not substitute for the field placement courses required of all social work majors.

*Prereq: SWRK 120, sophomore standing, approval of the cooperative education office, and department permission.*

**SWRK 388 Preprofessional Practicum 3 hrs**

The student is assigned to a human services agency or organization for the semester for four hours weekly. The agency, in agreement with the faculty instructor, provides social work learning experiences and social work supervision. A two-hour weekly seminar relates practicum experience to theoretical knowledge. For students majoring in social work, students minoring in social work, and students pursuing related disciplines such as gerontology and criminal justice, who are interested in an introduction to practical aspects. Social work majors must take concurrently with SWRK-317.

*Prereq: Non-social work majors must have junior standing, SWRK 120, and department permission.*

**SWRK 403 Practice Issues with Women 3 hrs**

Builds upon and integrates various theoretical frameworks to provide a basis for social work practice with women. An important theme in the course is the exploration of personal attitudes and beliefs as they effect social work practice with women.

*Prereq: PSY 242.*

**SWRK 405 Analysis and Change of Social Welfare Policies 3 hrs**

Current social policy and its intended and unintended effects on client populations. Policy analysis and strategies and methods for policy change. Social work majors must enroll concurrently in SWRK 408 and SWRK 488.

*Prereq: SWRK 120, SWRK 222, SWRK 251, SWRK 254, and either PLSC 112 or PLSC 202.*

**SWRK 408 Social Work Practice II 3 hrs**

The generalist conceptual framework for social work practice. Practice values, models of assessment, and phases of planned sequential change. Must be taken concurrently with SWRK 405 and SWRK 488.

*Prereq: Department permission.*

**SWRK 409 Social Work Practice III 3 hrs**

A continuation of SWRK 408; examines in more depth a variety of social work practice models, interventive strategies, methods, roles, and skills. Must be taken concurrently with SWRK 489 Field Experience II.

*Prereq: SWRK 408, SWRK 488 and department permission.*

**SWRK 413 Women and Aging 3 hrs**

Designed to provide social work, women's studies, and gerontology students with the skills and sensitivity to understand the issues, needs, and positive attributes of women as they grow older. Students will examine the lives of women in special groups, such as older minority women, caregivers, widows and institutionalized elderly women. Students will learn skills to provide effective services to older women in a variety of human service settings.

*Prereq: Junior/senior or graduate standing.*

**SWRK 419 Family-Centered Practice 3 hrs**

A foundation course for the family and children's services program and an elective for students interested in social work with families. The family as a socio-psychological system that meets the needs of both children and adults. Practice knowledge and skill in delivering services and developing resources for families at risk.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 420 Working with Aging People 3 hrs**

The role of social worker with aged people. The delivery of social services to the aged with a focus on practice approaches and techniques unique to various social service settings.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 422 Specialized Services for Families with Children in Placement 3 hrs**

Practice knowledge and skills for working with families where out-of-home placement of children has become necessary. Issues of identity, ethnicity, and continuity in child welfare. The social worker's role in planning for permanence and working in a team approach with foster parents and other substitute care providers.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 424 Social Work with Physically and Mentally Handicapped 3 hrs**

The impact of intellectual, emotional, and/or physical handicapping conditions upon the individual, the family, and the community including public attitudes, policies and programs. Social work practice knowledge, values, and skills in the planning and delivery of preventive and supportive services.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 431 Substance Abuse 3 hrs**

Current approaches to the prevention and treatment of drug and alcohol abuse. Consideration of the physiological, psychological, and social impact of substance abuse on the individual, the family, and the community. The role of the social worker in prevention and treatment.

*Prereq: SWRK 120, SWRK 222, or department permission.*



**SWRK 435 Group Work with Children and Families 3 hrs**

Social group work theory and practice as a relevant way to work with children and families. Group process as it occurs in natural groups and the effect of this process on individual behavior. Techniques that can be built into the group to effect client change.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 438 The Interdisciplinary Health Care Team 1 hr**

The purpose and function of interdisciplinary teams in health care settings and the roles and collaboration of health care professionals such as doctors, dietitians, health administrators, nurses, psychologists, physical therapists, occupational therapists and social workers. Instruction by an interdisciplinary team.

*Prereq: SWRK 120 and SWRK 222 or department permission. No prerequisites for non-social work students who are majoring in health disciplines and who have at least junior standing.*

**SWRK 439 Social Work Practice in Health Care Settings 3 hrs**

Social work roles and practice in health care settings with primary emphasis on their application in medical settings. The social work roles and practice intervention strategies in mental health settings and substance-abuse services settings.

*Prereq: SWRK 120 and SWRK 222 and Services or department permission.*

**SWRK 440 Issues in Mental Health Practice 3 hrs**

Issues in mental health practice with emphasis on deinstitutionalization, community mental health, and the role of the entry-level social worker.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 443 Assessment Issues in Domestic Violence 3 hrs**

This course will explore violence in the home, focusing primarily on spouse or partner abuse and touching on elder abuse, sexual abuse, and child abuse and neglect. Students will learn how to make domestic violence social work assessments.

*Prereq: SWRK 120 and junior, senior, or graduate standing; or department permission.*

**SWRK 457 Separation, Loss, and Grief 1 hr**

Separation, loss, and grief as integral aspects of the human experience. Practice issues and applications addressing the impact of loss, separation, and grief on client and societal systems.

*Prereq: SWRK 120 and SWRK 222, or department permission.*

**SWRK 460 The Law and Social Work with the Family 3 hrs**

Social workers and lawyers frequently find themselves working together dealing with issues and problems involving individuals and families, such as in cases of divorce, child abuse and neglect, child custody, delinquency and mental health. Legal and social work perspectives in terms of client rights, needs and professional goals. Social work practice in the family court arena.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 463 Social Work Practice with Legal Offenders 3 hrs**

Professional roles and appropriate practice skills utilized by social workers and allied professionals in working with legal offenders.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 465 Social Work, Sex, and the Family 3 hrs**

Impact of sexual behavior and issues of sexuality on family relationships and the development of children. A broad view of human sexuality focusing on assessment and social work intervention in situations in which sexual issues are significant, including incest, adolescent sexual relationships, sexual preferences, birth control, venereal disease and sexual functioning.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 467 Crisis Intervention 2 hrs**

Systems in crisis including different types of crises, indications of a system in crisis and crisis intervention strategies.

*Prereq: SWRK 120 and SWRK 222, or department permission.*

**SWRK 470 Supervising Staff and Volunteers 3 hrs**

Models of supervision and the roles of the social services supervisor. The basic knowledge, skills, and values required for effective supervision of bachelor's degree-level staff, paraprofessional staff, and volunteers within family and children's services agencies.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 477/478/479 Special Topics 1/2/3 hrs**

Specialized topics integral to contemporary social work practice. Social work faculty members will select contemporary topics that are different from existing social work courses. Since topics change, a student may take the course more than once.

*Prereq: SWRK 120, SWRK 222, or department permission.*

**SWRK 488 Field Experience I 6 hrs**

Field experience designed to meet the learning needs of students and the standards of professional social work education. Professional standards are fixed; however, learning needs of students may vary. The field placement agency, in consultation with the Social Work Department, provides learning experiences and supervision at the senior level. Open only to social work majors with senior standing and an overall GPA of 2.3 or better in social work courses. Student may not be on academic probation. Must be taken concurrently with SWRK 405 and SWRK 408.

*Prereq: SWRK 315, SWRK 317, SWRK 360, SWRK 388, and department permission.*

**SWRK 489 Field Experience II 6 hrs**

A continuation of SWRK 488. A student must receive a "C" or better in SWRK 488, have an overall GPA of 2.3 or better in social work courses, and not be on academic probation. Open to majors only. Must be taken concurrently with SWRK 409.

**SWRK 490 Senior Thesis Seminar 3 hrs**

This is the capstone course for students completing the honors program in social work. A senior thesis or project is completed in consultation with the faculty member.

*Prereq: Senior standing, social work major, and course work on statistics and research methodology.*

**SWRK 497/498/499 Independent Study 1/2/3 hrs**

Directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student.

*Prereq: Department permission.*

# **College of Technology**

**Thomas K. Harden  
Dean**

**Max E. Kanagy  
Interim Associate Dean**

**Pamela Hill  
Administrative Associate**

**150 Sill Hall  
734.487.0354**

## **DEPARTMENTS**

**Business and Technology Education**

**Industrial Technology**

**Interdisciplinary Technology**

**Military Science**

## College of Technology

Web site: [www.emich.edu/public/cot/welcome.htm](http://www.emich.edu/public/cot/welcome.htm)

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**150 Sill Hall**  
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The College of Technology seeks to meet the existing and emerging personnel needs of business, industry and education. Critical to its formation in 1980 was information gathered from 575 industries in Michigan that indicated a significant need for trained technologists in a wide variety of corporate and industrial positions.

To meet these needs, four-year baccalaureate programs and graduate programs have been designed to provide a solid foundation in mathematics, science, technology, management and human relations. Program content is practical and applied with many opportunities for laboratory and cooperative work experiences. Graduates are trained for engineering technology and technology management positions in production, research and marketing for business and industry. Also included within the college is the University's long-standing military science program, which provides training for and entry into the active Army, Army Reserve or National Guard as a commissioned officer.

Business and industry teaching and industrial training personnel programs, which have existed at EMU for a considerable length of time, were combined to form this college.

The college currently is composed of the departments of Business and Technology Education, Industrial Technology, Interdisciplinary Technology and Military Science. Inherent in the interdisciplinary program is the use of existing courses and personnel throughout the University.

Students in the prearchitecture and preengineering preprofessional programs are advised by faculty in the Department of Industrial Technology. These programs are shared with the College of Arts and Sciences.

Degrees offered by the college are the bachelor of science degree for all programs except two. The bachelor of business education degree is awarded to those who successfully complete the programs in business services technology education and marketing education. The bachelor of business education degree is described under the Business and Technology Education Department area of the catalog.

## Business and Technology Education

Web site: [www.emich.edu/public/bted/BTEDHOME.HTM](http://www.emich.edu/public/bted/BTEDHOME.HTM)

**David L. Boggs**  
Department Head  
14 Sill  
734.487.4330 / FAX: 734.487.8755  
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**Professors:** David Boggs, Thomas K. Harden, Lewis D. Kieft, Earl Meyer, Ann M. Remp  
**Associate Professors:** Konnie G. Kustron, David W. Leapard, Thomas L. McDole, Darcelle D. White  
**Assistant Professors:** Ronald Fulkert

The Business and Technology Education Department offers the following degree programs:

### Degree:

Bachelor of Business Education  
*Business education curriculum*

### Majors:

Business services and technology education for secondary education  
Marketing education for secondary education

### Degree:

Bachelor of Business Education  
*Technology education curriculum*

### Majors:

Industrial-vocational education for secondary education  
Technology education for secondary education

### Minor:

Technology education for elementary and special education-elementary

### Degree:

Bachelor of Science  
*Office technology curriculum*

### Majors:

Administrative management  
Legal assistant  
Network and information technology administration

### Minor:

Office technology

### Advising Coordinators:

Administrative management: Darcelle D. White  
Business services and technology education: Ronald Fulkert  
Legal assistants: Konnie G. Kustron  
Marketing education: Earl C. Meyer  
Network and information technology administration: Ann M. Remp  
Office technology minor: Ann M. Remp  
Technology education/industrial-vocational education: Thomas L. McDole  
Technology education minor: Lewis D. Kieft

Graduate study leads to the master of business education degree and the master of science degree in technology education.

## Office Technology Curriculum

The bachelor of science degree is designed for individuals preparing for administrative management, legal assistant (paralegal profession), and network and information technology administration careers. Individuals who complete this professional curriculum should find many career opportunities open to them.

Students should follow the general education guidelines in the catalog under which they entered the University. Students following the new general education requirements must include a course in cross cultural or international studies within the general education. Please follow general guidelines except for specific requirements as noted below.

Students without appropriate background or 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.

## Administrative Management Major

**ISIS major code: BT02**

The administrative management major focuses on the technical and management skills, concepts and principles needed to assume responsibility for executive office administration. Administrative managers are vital members of executive teams and assume supervisory, organizational and communicative roles in the coordination of administrative services.

<b>Administrative management major:</b> .....	<b>50 hours</b>
<i>Administrative and information management concepts:</i> .....	<i>21 hours</i>
BEDU 395 Office Administration .....	3
BEDU 396 Records Administration .....	3
BEDU 495 End-User Systems: Implementation and Evaluation .....	3
BEDU 496 Records Administration Using Database .....	3
MGMT 384 Human Resource Management .....	3
MGMT 485 Human Resource Development .....	3
Restricted elective .....	3
Choose one course: MKTG 374 Business to Business Marketing or from additional restricted elective list.	

<i>Business foundations:</i> .....	<i>21 hours</i>
BEDU 100 Contemporary Business .....	3
ACC 240 Principles of Accounting I .....	3
ACC 241 Principles of Accounting II .....	3
FIN 350 Principles of Finance .....	3
LAW 293 Legal Environment of Business .....	3
MKTG 360 Principles of Marketing .....	3
DS 265 Business Statistics I .....	3
<i>Information processing:</i> .....	<i>8 hours</i>
BEDU 123 Word Processing/Keyboarding Applications .....	2
BEDU 210 Concepts of Word/Information Processing .....	3
BEDU 224 Computer-based Business Mathematics .....	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/admin.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/admin.html).

## Network and Information Technology Administration Major

**ISIS major code: BT03**

The major in network and information technology administration was created to meet the changing demands of the automated office. The program is designed to prepare individuals for positions in local area network administration, microcomputer and office systems administration, client liaison and training, customer support, and information center positions.

<b>Network and information technology administration major:</b> .....	<b>56 hours</b>
<i>Systems and automation concepts:</i> .....	<i>24 hours</i>
BEDU 310 Word/Information Processing Administration ...	3
BEDU 395 Office Administration .....	3
BEDU 396 Records Administration .....	3
BEDU 422 End-User Systems: Planning and Design .....	3

BEDU 495 End-User Systems: Implementation and Evaluation .....	3
BEDU 496 Records Administration Using Database .....	3
BEDU 387 Cooperative Education in Business Education .....	3
Choice of one: .....	3
BEDU 487 Cooperative Education in Business Education (3)	
INDT 305 Communication Transmission Systems (3)	
INDT 436 Electronic Publishing Technology (3)	

<i>Business foundations:</i> .....	<i>21 hours</i>
BEDU 100 Contemporary Business .....	3
ACC 240 Principles of Accounting I .....	3
ACC 241 Principles of Accounting II .....	3
ACC 342 Managerial Cost Accounting .....	3
LAW 293 Legal Environment of Business .....	3
MKTG 360 Principles of Marketing .....	3
DS 265 Business Statistics I .....	3
<i>Information processing:</i> .....	<i>11 hours</i>
BEDU 123 Word Processing/Keyboarding Applications .....	2
BEDU 210 Concepts of Word/Information Processing .....	3
BEDU 220 Word/Information Processing Operations .....	3
BEDU 224 Computer-based Business Mathematics .....	3

### Office Technology Restricted Electives

Students should select restricted electives in consultation with their office technology program advisers.	
BEDU 205 Women in Business (3)	
BEDU 210 Concepts of Word/Information Processing (3)	
LEGL 211 Introduction to Paralegalism and Legal Terminology (3)	
BEDU 220 Word/Information Processing Operations (3)	
BEDU 222 Transcription Applications and Technology (3)	
BEDU 225 Notetaking Skills for Professionals (2)	
BEDU 310 Word/Information Processing Administration (3)	
BEDU 325 Advanced Notetaking and Transcription for Professionals (2)	
BEDU 344 Administration of Computer Systems (3)	
BEDU 387 Cooperative Education in Business Education (3)	
LEGL 412 Court Rules, Forms, and Drafting Contracts (3)	
BEDU 422 End-User Systems: Planning and Design (3)	
BEDU 495 End-User Systems: Implementation and Evaluation (3)	
BEDU 496 Records Administration Using Database (3)	
BEDU 487 Cooperative Education in Business Education (3)	
BEDU 497/498/499 Independent Study (1/2/3)	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/offaut.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/offaut.html).

## Legal Assistant (Paralegal) Major

**ISIS major code: BT04**

The legal assistant major focuses on the skills necessary for an individual to assist the attorney, under the supervision and direction of the attorney, and with the understanding that the practice of law by lay persons is strictly prohibited. Skills include proficiency in legal research 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 resources, hospitals, state and federal government, and court systems. This major offers professional training and lays a foundation for a career in the legal field. It also qualifies as a pre-law major. This program is accredited by the American Bar Association.



For students who have earned a prior degree, the legal assistant major can be pursued through a second bachelor's degree.

**Legal assistant (paralegal) major:** ..... 59 hours

*Required courses:* ..... 33 hours

LEGL 211 Introduction to Paralegalism and Legal Terminology .....	3
BEDU 220 Word/Information Processing Operations .....	3
LEGL 304 Legal Writing, Research, and Analysis I .....	3
LEGL 305 Advanced Legal Writing, Research, and Analysis II .....	3
LEGL 306 Advanced Legal Writing, Research, and Analysis III .....	3
LEGL 308 Personal Injury Law and Litigation .....	3
LEGL 311 Probate, Estates, and Wills .....	3
LEGL 313 Family Law .....	3
LEGL 411 Civil Litigation, Investigation, and Procedure ....	3
LEGL 412 Court Rules, Forms, and Drafting Contracts .....	3
LEGL 416 Legal Assistant Internship (Paralegal) .....	3

*Restricted electives: (minimum)* ..... 9 hours

CTAC 357 Interviewing as Communication (3)	
LEGL 414 Advanced Probate, Estates, and Trusts (3)	
LEGL 415 Bankruptcy Law (3)	
BEDU 496 Records Administration Using Database (3)	
BEDU 497/498/499 Independent Study (1-3)	
PLSC 301 The American Legal System (3)	
PLSC 341 International Law (3)	
PLSC 456 Criminal Law I (3)	
LAW 293 Legal Environment of Business (3)	
LAW 393 Law of Business Enterprises (3)	
LAW 403 Employment Law (3)	

*Business and information processing core: (all required)*..... 17 hours

BEDU 100 Contemporary Business .....	3
BEDU 123 Word Processing/Keyboarding Applications .....	2
BEDU 224 Computer-based Business Mathematics .....	3
ACC 240 Principles of Accounting I .....	3
BEDU 395 Office Administration .....	3
BEDU 396 Records Administration .....	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/legal.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/legal.html).

## Business Education Curriculum

The bachelor of business education degree is designed for individuals preparing for careers as junior high school business teachers, high school teachers of marketing or business services and technology education, or other positions requiring teacher certification. Students completing the professional program will find teaching and nonteaching careers in business open to them.

## Business Services and Technology Education

### Secondary Teacher Certification

**ISIS major code: BT32**

The business services and technology education 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.

This major can be completed only in conjunction with the bachelor of business 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 business education, certification code "GX," and, with appropriate work experience, certification code "VB." The certification test covering this field is #32, "Business Education."

**Teaching Major:** ..... 61 hours

BEDU 100 Contemporary Business .....	3
BEDU 123 Word Processing/Keyboarding Applications .....	2
#BEDU 201 Microcomputers for Business Applications (satisfies general education requirement I.5) .....	3
#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	3
#ECON 202 Principles of Economics II (if #ECON 201 is taken, satisfies general education requirement III.4) ....	3
BEDU 210 Concepts of Word/Information Processing .....	3
BEDU 220 Word/Information Processing Operations .....	3
BEDU 222 Transcription Applications and Technology .....	3
BEDU 224 Computer-based Business Mathematics .....	3
ACC 240 Principles of Accounting I .....	3
ACC 241 Principles of Accounting II .....	3
ACC 244 Personal Tax Accounting .....	2
Two additional accounting courses from ACC 340, ACC 341, ACC 342 or ACC 346 or other approved ACC courses .....	6
BEDU 250 Personal Finance .....	3
LAW 293 Legal Environment of Business .....	3
BEDU 310 Word/Information Processing Administration ...	3
MKTG 360 Principles of Marketing .....	3
BEDU 395 Office Administration .....	3
BEDU 396 Records Administration .....	3
BEDU 496 Records Administration Using Database .....	3

*#Advising note:* 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.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/bste\\_t.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/bste_t.html).

## Marketing Education

### Secondary Teacher Certification

**ISIS major code: BT31**

The marketing education major leads to a Michigan Department of Education Secondary Provisional Certificate and vocational endorsement qualifying the prospective teacher in such areas as sales, retailing, marketing, and advertising.

This major can be completed only in conjunction with the bachelor of business 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 business education, certification code "GM," and, with appropriate work experience, certification code "VD." The certification test covering this field is #36, "Marketing (Distributive Education)."

**Teaching Major:** ..... 50 hours

ACC 240 Principles of Accounting I .....	3
ACC 241 Principles of Accounting II .....	3
BEDU 100 Contemporary Business .....	3
#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	3

#ECON 202 Principles of Economics II (if #ECON 201 is taken, satisfies general education requirement III.4) .....	3
LAW 293 Legal Environment of Business .....	3
MGMT 386 Organizational Behavior and Theory .....	3
MKTG 360 Principles of Marketing .....	3
MKTG 261 Contemporary Selling .....	3
MKTG 363 Retailing .....	3
MKTG 365 Consumer Behavior .....	3
Two of: .....	6
LAW 393 Law of Business Enterprises (3)	
MGMT 384 Human Resource Management (3)	
MGMT 388 Introduction to Entrepreneurship (3)	
MGMT 485 Human Resource Development (3)	
MKTG 368 Marketing Strategy (3)	
MKTG 369 Advertising (3)	
MKTG 374 Business to Business Marketing (3)	
MKTG 461 Sales Management (3)	
Eleven hours from: .....	11
BEDU 123 Word Processing/Keyboarding Applications (2)	
BEDU 224 Computer-based Business Mathematics (3)	
BEDU 250 Personal Finance (3)	
BEDU 387 Cooperative Education in Business Education (3)	
BEDU 487 Cooperative Education in Business Education (3)	
BEDU 497/498/499 Independent Study (1/2/3)	
ATM 145 Introduction to Apparel and Textile Merchandising (3)	
ATM 235 Introductory Textiles (3)	
ATM 255 Apparel Analysis (3)	
ATM 439 Fashion Markets (3)	
TEDU 452 Principles of Vocational-Technical Education (3)	
BTED 568 Coordination of Cooperative Education Programs (2)*	
4000 clock hours (or equivalent) of recent work experience in the field of marketing (0)	
BEDU 368 (2), BEDU 461 (2), and BEDU 367 (2) (listed under Professional Studies) are also requirements of the major (0)	

\*Must have senior standing and a 2.5 grade point average to register.

#Advising note: 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.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/bte/ugrad/major/me\\_t.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/bte/ugrad/major/me_t.html).

## Technology Education Curriculum

The technology education curriculum prepares teachers of technology and industrial subjects for the elementary, middle, and senior high school, and teachers of industrial-vocational subjects for the senior high and community college. It offers a broad-based description of modern industry and technology, and the opportunity to acquire specialized competencies in a number of technical, industrial and/or vocational areas. The programs and endorsements offered in technology education are:

**Technology and Design (TX):** The field of technology and design addresses the development of technological literacy for all students. Technological literacy encompasses the ability to apply technology, understand issues raised by technology, and appreciate the significance of technology. The focus of the field is to engage learners with the actions used in developing, producing and assessing technology, and the concepts where technology is developed and used. The 36-hour major endorse-

ment qualifies the individual to teach only this subject area in grades K-12. The 24-hour minor endorsement qualifies the individual to teach only this subject area in grades K-8.

**Industrial Technology Education (IX):** The field of industrial technology addresses the development of technical knowledge and skills associated with a worker's life-role. The focus of the field is to engage learners in activities related to contemporary industrial practices, procedures, and processes. Learners may use the knowledge and skills of industrial technology as a foundation for participation in instructional programs that prepares them for specific technical careers. This K-12 endorsement qualifies the individual to teach only this subject area in grades K-12.

**Vocational Endorsement:** In addition to the above requirements, if the graduate possesses paid occupational experience in an area that is identified as appropriate for teaching in a reimbursed vocational education program, a vocational endorsement in that occupational area may also be granted. With the endorsement, the graduate may teach the specified vocational subject in grades 9-12. A minimum of two years employment (equated to 4,000 hours) of recent occupational experience that is directly related to the specific vocational courses one wishes to teach is required. This endorsement qualifies the individual to teach only this occupational area in grades 9-12.

**Industrial-Vocational Education (VT):** This major is designed to prepare teachers of industrial-vocational subjects for senior high and community college vocational education programs. Graduates who complete this major and have a minimum of two years paid work experience in a certifiable occupational area will qualify for the Temporary Vocational Authorization to teach in a specific occupational area. Options for cooperative work experience studies are available to the student as partial credit toward the occupational requirement. This endorsement qualifies the individual to teach only this occupational area in grades 9-12.

## Technology and Design Education(TX)

### K-12 Teacher Certification

ISIS major code: BT35

The technology and design major prepares teachers of technology education for grades K-12. All graduates with this major qualify for a Michigan Department of Education Secondary Provisional Certificate with an endorsement in technology and design. Graduates may qualify for vocational endorsement (Temporary Vocational Authorization) by completing two years of occupational experience in employment related to the area of study. Options for cooperative work experience are available to students as partial credit toward that occupational requirement.

This major must be completed in conjunction with the technology education curriculum. Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in technology and design, certification code "TX." The certification test covering this field is currently under development.

**Teaching Major: .....** **30 hours**

TEDU 103 Structures and Design in Technology .....	3
TEDU 106 Processing Technology .....	3
TEDU 114 Information and Control Technology .....	3
TEDU 118 Energy Technology .....	3
INDT 121 Graphic Communication .....	3
MFG 123 Manufacturing Processes and Methods I .....	3
CNST 201 Construction Systems .....	3
ELEC 200 Circuit Analysis I .....	3
TEDU 246 Safety in Technology and Industrial-Vocational Education .....	2
TEDU 450 Solving Technological Problems .....	3

Elective in technology (requires adviser permission) ..... 1

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/tde\\_t.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/tde_t.html).

## Industrial Technology Education (IX)

### K-12 Teacher Certification

#### ISIS major code: BT33

The industrial technology education major prepares teachers of industrial technology for grades K-12. All graduates with this major qualify for a Michigan Department of Education Secondary Provisional Certificate with an endorsement in industrial technology. Graduates may qualify for vocational endorsement (Temporary Vocational Authorization) by completing two years of occupational experience in employment related to the area of study. Options for cooperative work experience are available to students as partial credit toward that occupational requirement.

This major must be completed in conjunction with the technology education curriculum. Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in industrial technology, certification code "IX." The certification test covering this field is #38, "Industrial Technology."

#### Teaching Major/minor: ..... 44 hours

TEDU 103 Structures and Design in Technology .....	3
TEDU 106 Processing Technology .....	3
TEDU 114 Information and Control Technology .....	3
TEDU 118 Energy Technology .....	3
INDT 121 Graphic Communication .....	3
MFG 123 Manufacturing Processes and Methods I .....	3
CNST 201 Construction Systems .....	3
ELEC 200 Circuit Analysis I .....	3
TEDU 246 Safety in Technology and Industrial-Vocational Education .....	2
TEDU 450 Solving Technological Problems .....	3

15 hours from one of the following concentrations  
determined in consultation with the program  
adviser: ..... 15

#### Construction (15 hours from among):

CNST 125 Introduction to Construction (2)
CNST 206 Surveying (3)
CNST 229 Analysis of Commercial Prints (3)
CNST 303 Electrical, Mechanical, and Equipment Systems (3)
TEDU 387 Cooperative Education in Technology Education (3)
CNST 402 Construction Materials (3)
TEDU 487 Cooperative Education in Technology Education (3)

#### Manufacturing (15 hours from among):

MFG 103 Introduction to Automation (3)
MFG 124 Manufacturing Processes and Methods II (3)
MFG 112 Plastics (3)
MFG 215 Machine Tool Metalworking (3)
ELEC 218 Motors and Control (3)
CADM 223 Engineering Graphics II (3)
CADM 231 Computer Graphics Programming (3)
MFG 251 Material Analysis and Testing (3)
MFG 306 Plastic Processing (3)
MFG 316 Design for Manufacturing and Tooling (3)
MFG 318 Fluid Power (3)
CADM 361 Computer Numerical Control (3)

TEDU 387 Cooperative Education in Technology  
Education (3)

CADM 417 Industrial Robotics (3)

CADM 425 Advanced Manufacturing Methods (3)

TEDU 487 Cooperative Education in Technology  
Education (3)

#### Graphic Communications (15 hours from among):

##### Drafting Option

CADM 101 Introduction to Industrial Drawing (3)
CADM 122 Engineering Graphics I (3)
CNST 206 Surveying (3)
CADM 223 Engineering Graphics,II (3)
CNST 228 Construction Drawing (3)
INDT 231 Introduction to Computer Graphic Systems (3)
CADM 231 Computer Graphics Programming (3)
CADM 324 Industrial Drawing (3)
TEDU 387 Cooperative Education in Technology Education (3)
CADM 331 Interactive CAD Programming (3)
CADM 432 3-D Feature-Based Modeling and Surfacing Techniques (3)
CADM 433 Advanced Computer-Aided Design (3)
TEDU 487 Cooperative Education in Technology Education (3)

##### Graphic Arts Option

INDT 104 Introduction to Communication Technology (2)
INDT 204 Photographic Communication (3)
INDT 205 Photo-Technology (2)
INDT 207 Photographic Reproduction (3)
INDT 304 Advanced Photographic Communication (3)
INDT 305 Communication Transmission Systems (3)
INDT 318 Graphic Arts Workshop (3)
TEDU 387 Cooperative Education in Technology Educa- tion (3)
INDT 404 Photo Communication Workshop (3)
INDT 409 Emerging Technologies in Storage and Re- trieval (3)
INDT 421 Photographic Typesetting (3)
INDT 425 Communication Technology and Social Change (3)
INDT 436 Electronic Publishing Technology (3)
TEDU 487 Cooperative Education in Technology Education (3)

#### Power (15 hours from among):

##### Electronics option

ELEC 218 Motors and Control (3)
ELEC 214 Digital Circuit Analysis I (3)
TEDU 387 Cooperative Education in Technology Education (3)
ELEC 300 Analog Circuit Analysis I (3)
ELEC 415 Communication Circuits (3)
ELEC 320 Microcomputer Circuits (3)
TEDU 487 Cooperative Education in Technology Education (3)

##### Energy Systems option

ELEC 219 Techniques of Energy Control (3)
MFG 318 Fluid Power (3)
CADM 325 Applied Mechanics, Kinematics, and Design (3)
TEDU 387 Cooperative Education in Technology Education (3)
CADM 417 Industrial Robotics (3)
TEDU 487 Cooperative Education in Technology Education (3)

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/ite\\_t.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/cot/bte/ugrad/major/ite_t.html).

## Industrial-Vocational Education

### Secondary Teacher Certification

ISIS major code: BT34

The industrial-vocational major is designed to prepare teachers of industrial-vocational subjects for senior high school and community college vocational education programs. Graduates who complete this major and have a minimum of two years work experience in a certifiable occupational area will qualify for the Temporary Vocational Authorization to teach in a specific occupational area. Options for cooperative work experience studies are available to the student as partial credit toward the occupational requirement.

This major must be completed in conjunction with the technology education curriculum. This major qualifies individuals to teach only in select occupational areas. The Temporary Vocational Authorization is valid for six years. By that time, individuals must have completed additional requirements to qualify for the Occupational Education Certificate.

This major provides favorable opportunities for community college transfer students who have completed a technical major at the community college and who wish to teach in a specific occupational subject area in the senior high school or community college. Individuals currently teaching in an industrial-vocational subject area under the Annual Vocational Authorization would also find this major to be a desirable option.

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 vocational trades, certification code "VT." The certification test covering this field is an occupational area test.

Teaching major/minor: ..... 44 hours

- #INDT 150 Understanding Technology (satisfies general education requirement II.3) ..... 3
- TEDU 246 Safety in Technology and Industrial-Vocational Education ..... 2
- TEDU 452 Principles of Vocational-Technical Education ... 3
- Concentration ..... 36

The occupational specialization in which the student will seek vocational authorization. Approval may be sought for community college or other technical school course work as transfer credit if it properly represents a certifiable occupational area. Work experience also may be validated and credit awarded toward the area of concentration by successfully passing an occupational competency examination.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/bte/ugrad/major/ive\\_t.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/bte/ugrad/major/ive_t.html).

## Office Technology Minor

ISIS minor code: BT03

Required courses: ..... 12 hours

- #BEDU 201 Microcomputers for Business Applications (satisfies general education requirement I.5) ..... 3
- \*BEDU 220 Word/Information Processing Operations ..... 3
- BEDU 224 Computer-based Business Mathematics ..... 3
- BEDU 395 Office Administration ..... 3

\*Students must take BEDU 123 Word Processing/Keyboarding Applications if they do not have appropriate background.

Choose one option: ..... 9

Option I Notetaking:

- BEDU 225 Notetaking Skills for Professionals (2)

- BEDU 325 Advanced Notetaking and Transcription for Professionals (2)
- BEDU 222 Transcription Applications and Technology (3)
- Restricted elective (2)

Option II Information Processing:

- BEDU 210 Concepts of Word/Information Processing (3)
- BEDU 222 Transcription Applications and Technology (3)
- BEDU 396 Records Administration (3)

Total: ..... 21 hours

## Technology and Design Education Minor

### Elementary and Special Education-Elementary Teacher Certification

ISIS minor code: BT36

Successful completion of this 24-hour minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in technology and design, certification code "TX." The certification test covering this field is under development.

- TEDU 250 Foundations of Technology and Industrial-Vocational Education ..... 3
- \*TEDU 253 Technology Education for Children ..... 3
- TEDU 354 Experiences in Technology for Children ..... 2
- TEDU 355 Seminar in Technology for the Elementary School ..... 2

Required 12 credits from: ..... 12

- INDT 121 Graphic Communication (3)
- TEDU 103 Structures and Design in Technology (3)
- TEDU 106 Processing Technology (3)
- TEDU 114 Information and Control Technology (3)
- TEDU 118 Energy Technology (3)

2-3 additional credits from these restricted electives to total 24 hours from: ..... 2-3

- INDT 204 Photographic Communication (3)
- TEDU 152 Arts and Crafts (3)
- TEDU 350 Curriculum in Technology and Industrial-Vocational Education (3)
- TEDU 452 Principles of Vocational-Technical Education (3)
- TEDU 497 Directed Study—Technology Education (1)

Total: ..... 24 hours

\*Satisfied in professional studies in elementary program.

## Business Education Courses

**BEDU 100 Contemporary Business** 3 hrs

The American business enterprise and international business. Contemporary problems and future challenges. Career decision-making in terms of business careers. Open to all students except upper-division business majors.

**BEDU 119 Keyboarding for Computers** 2 hrs

Basic touch keyboarding and word processing skills needed to use computers with an alphabetic/numeric keyboard, a 10-key keypad, and word processing software. Lab fee required.

**BEDU 123 Word Processing/Keyboarding Applications** 2 hrs

Continued keyboarding and word processing skill development, Application of skill to business documents, manuscripts and reports. Emphasis on improved editing, proofreading and referencing skills. Lab fee required.

Prereq: BEDU 119 or touch keyboarding experience.



**BEDU 177/178/179 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**BEDU 200 Principles of Marketing and Office Education** 3 hrs

An introduction to marketing and office education. The scope and importance of vocational education with emphasis on marketing and office education. Prestudent teaching experience will be initiated in conjunction with this course.

**BEDU 201 Microcomputers for Business Applications** 3 hrs

Computer hardware and software for office use including both main-frame 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. Lab fee required.

**BEDU 205 Women in Business** 3 hrs

Social and business conditions that support the entry of women to executive positions in business; career opportunities at the professional and executive levels of business.

**BEDU 210 Concepts of Word/Information Processing** 3 hrs

The concepts and functions of word processing equipment, procedures and career opportunities. Applications and the organization of word processing services; the extension of word processing through the use of peripherals.

**BEDU 220 Word/Information Processing Operations** 3 hrs

Continued development of editing, proofreading and referencing techniques. Emphasis on advanced functions of word processing software, typography, graphics, and other desktop publishing concepts. Advanced document applications including merge and list processing, math operations, and importing from other software programs.

*Prereq: BEDU 123 and BEDU 201.*

**BEDU 222 Transcription Applications and Technology** 3 hrs

Using automated office equipment to produce mailable office communications from dictated and other input. Building language arts, keyboarding and word processing skills into transcription skills required for word processing employment. Lab fee required.

*Prereq: BEDU 220.*

**BEDU 224 Computer-based Business Mathematics** 3 hrs

Application of computer-based tools and procedures to the solution of mathematical problems encountered in the business office. Lab fee required.

*Prereq: BEDU 201 or department permission.*

**BEDU 225 Notetaking Skills for Professionals** 2 hrs

Designed to provide skills for successful notetaking for a variety of academic and professional activities, including library and other text-based research; and meetings, interviews and other audio/aural formats. Develops skill in rapid writing and reading systems along with related study, listening and basic transcription skills.

**BEDU 250 Personal Finance** 3 hrs

The management of financial resources to satisfy personal or family goals. Budgeting, consumer credit, investments, insurance, real estate, wills and trusts, and income taxes. Students learn to make decisions within the context of a realistic consumer-oriented environment. Open to all students.

**BEDU 277/278/279 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**BEDU 310 Word/Information Processing Administration** 3 hrs

Techniques to utilize staff and equipment most effectively, record keeping, work flow, evaluating personnel, establishing policies and standards of operation as applied to word processing.

*Prereq: BEDU 201, BEDU 210, BEDU 220.*

**BEDU 325 Advanced Notetaking and Transcription for Professionals** 2 hrs

A continuation of BEDU 225 which develops higher speeds in notetaking and transcription skills for employment and professional use. Continues the development of related study and listening skills.

*Prereq: BEDU 123 and BEDU 225, or equivalent.*

**BEDU 344 Administration of Computer Systems** 3 hrs

To provide an introduction to the principles and practices required to operate a computer operating system in the educational or small/medium institution environment. The course will deal with both the operating system in micro- and minicomputer forms as a program and as a complete system. The course will emphasize the daily tasks a small/medium system administrator must accomplish.

*Prereq: BEDU 201, BEDU 224, BEDU 396, ENGL 324.*

**BEDU 364 Methods of Teaching General Business Subjects** 2 hrs

Methods in teaching general business, business law and keyboarding with application to classroom situations. Objectives, lesson planning, techniques of teaching, and sources of materials.

*Prereq: RDNG 311 and EDPS 322. A 2.5 GPA in all business education subjects taken at EMU is required before enrollment, with no academic probation. Admission to the teacher education program.*

**BEDU 365 Methods of Teaching Office Education** 2 hrs

Methods of teaching shorthand, office block, bookkeeping, accounting, keyboarding, word processing and cooperative education classes. Objectives, lesson planning, techniques of teaching and sources of materials.

*Prereq: EDPS 322 and BEDU 364. A 2.5 GPA in all business education subjects taken at EMU is required before enrollment, with no academic probation.*

**BEDU 366 Methods of Teaching Marketing Education** 2 hrs

Techniques and practices utilized in teaching marketing and cooperative education in secondary schools, community colleges and adult evening schools.

*Prereq: EDPS 322. A 2.5 GPA in all business education subjects taken at EMU is required before enrollment, with no academic probation. Admission to the teacher education program.*

**BEDU 367 Curriculum in Marketing Education** 2 hrs

Overviews content bases and other factors affecting marketing education curriculum. Includes development of comprehensive curriculum plans for a variety of marketing education settings, utilization of nonclassroom curriculum delivery systems, and implementation of curriculum evaluation and revision procedures. Examines current trends in marketing education curriculum.

**BEDU 368 Management of Marketing Education Programs** 2 hrs

Examines the marketing educator roles of DECA adviser, public relations specialist, career counselor, program administrator/supervisor, and professional educator.

**BEDU 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**BEDU 387 Cooperative Education in Business Education** 3 hrs

Business education majors will be placed on a job that relates to their primary area of study for one semester. During this period regular employees' benefits may be received. Credit/no credit. Credit applicable to the major in business education only.

*Prereq: Department permission.*

**BEDU 395 Office Administration** 3 hrs

Office problems from the point of view of the administrator. Office organization, physical facilities, nature of office work, personnel relations, and control of office output.

*Prereq: BEDU 201.*

**BEDU 396 Records Administration** 3 hrs

Management methodology in records, control, costs, protection, retention, retrieval and disposal. Records administration as a management tool.

*Prereq: BEDU 201.*

**BEDU 422 End-User Systems: Planning and Design** 3 hrs

The course focuses on planning and designing end-user 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. Lab fee required.

*Prereq: BEDU 395 or BEDU 396.*

**BEDU 461 Projects and Simulations in Marketing Education** 2 hrs

Projects and simulations methods in marketing education are explored with a major focus on the organization and coordination of the school store. Implementation steps for the entrepreneurship simulation are developed. Small scale simulations and projects are also studied as well as procedures for developing simulations and projects.

**BEDU 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**BEDU 487 Cooperative Education in Business Education** 3 hrs

Business education majors will be placed on a job that relates to their primary area of study for one semester. During this period regular employees' benefits may be received. Credit/no credit. Credit applicable to the major in business education only.

*Prereq: BEDU 387.*

**BEDU 495 End-User Systems: Implementation and Evaluation** 3 hrs

The course focuses on implementing and evaluating end-user 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. Lab fee required.

*Prereq: BEDU 395 or BEDU 396.*

**BEDU 496 Records Administration Using Database** 3 hrs

Database as a tool of automated search and retrieval. Identifying information needs of users: design and development of records classification

structures suitable for automated records systems; searching techniques; generation of reports such as records user listings, master record listings and records retention schedules. Extensive applications using database software. Lab fee required.

*Prereq: BEDU 201 and BEDU 396.*

**BEDU 497/498/499 Independent Study** 1/2/3 hrs

Students pursue some special area of study or experimentation under the direction of a designated faculty member from the department.

*Prereq: Department permission.*

**Legal Assistant Courses****LEGL 211 Introduction to Paralegalism and Legal Terminology** 3 hrs

An overview of the nature of the legal assistant (paralegal) program, with a look at the roles, opportunities, responsibilities and problems encountered. The student is introduced to areas of the law in which the legal assistant may work. Ethical considerations are addressed and legal terminology will be introduced and emphasized. Must be completed in the first 12 hours of the major.

**LEGL 304 Legal Writing, Research, and Analysis I** 3 hrs

This course is designed to develop basic skills in analyzing legal problems, researching those problems, and searching for legal authority. Students are also introduced to primary and secondary legal resources. Emphasis is given to preparing and writing legal memoranda. Extensive use of library law materials is required.

*Prereq: ENGL 121 and BEDU 123 (majors only).*

**LEGL 305 Advanced Legal Writing, Research, and Analysis II** 3 hrs

This course will build upon skills acquired in LEGL 304. 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. Lab fee required.

*Prereq: LEGL 304 and BEDU 201.*

**LEGL 306 Advanced Legal Writing, Research, and Analysis III** 3 hrs

This course will build upon the skills learned in LEGL 304 and LEGL 305. 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.

*Prereq: LEGL 304.*

**LEGL 308 Personal Injury Law and Litigation** 3 hrs

A study of the law and litigation techniques in personal injury cases. Students will become acquainted with such torts as assault, battery, false imprisonment, defamation and strict product liability. Study will be directed particularly to the fields of negligence and medical malpractice.

*Prereq: LEGL 211.*

**LEGL 311 Probate, Estates, and Wills** 3 hrs

The student will study the Probate Code and probate procedures, descendants' estates, death and inheritance taxes, and other related problems. Special attention will be given to wills and how wills are drafted.

*Prereq: LEGL 211.*

**LEGL 313 Family Law** 3 hrs

A basic introduction to the areas of domestic law, including such subjects as divorce, adoption, abortion, parental rights, children's rights, child abuse, neglect and guardianship. The course will be directed to

ward the legal assistant's role in preparing court documents and other tasks of the paralegal in this area.

*Prereq: LEGL 211.*

**LEGL 411 Civil Litigation, Investigation, and Procedure 3 hrs**

A comprehensive survey of civil litigation and procedure. The student will be introduced to every phase of litigation starting with the filing of the lawsuit through the appellate process. The student will be expected to draw up a complaint and a number of pleadings, as well as drafting interrogatories and digesting depositions. Legal investigation will be addressed.

*Prereq: LEGL 211 and LEGL 304.*

**LEGL 412 Court Rules, Forms, and Drafting Contracts 3 hrs**

Study will be made of Michigan Court Rules and court forms commonly used in the Michigan Court system. Students will do problems preparing court forms for a variety of legal actions. Students will also study contract law and learn to draft documents.

*Prereq: LEGL 211 and LEGL 304.*

**LEGL 414 Advanced Probate, Estates, and Trusts 3 hrs**

This course will build upon the material covered in LEGL 311 Probate, Estates, and Wills. Subject matter will include the Probate Code and probate procedure, federal and state inheritance taxes. Special emphasis will be given to trusts, purposes for them, and the drafting of trusts.

*Prereq: LEGL 304 and LEGL 311.*

**LEGL 415 Bankruptcy Law 3 hrs**

A study will be made of the Federal Bankruptcy Code, with emphasis on Chapters 7, 11 and 13. Students will learn how to prepare the necessary papers for filing for bankruptcy.

*Prereq: LEGL 304.*

**LEGL 416 Legal Assistant Internship 3 to 6 hrs**

Placement for students will be arranged with law firms, courts, or 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. Where appropriate criteria are met, Cooperative Education can be substituted for an Internship.

*Prereq: LEGL 211, LEGL 304, LEGL 305, LEGL 411, LEGL 412. Permission of instructor; must have completed required courses in the curriculum.*

### Technology Education Courses

**TEDU 103 Structures and Design in Technology 3 hrs**

The application of design elements, principles and procedures in the development of solutions to structural problems in technology. Considers human and environmental factors in design solutions. Illustration and description of structures, shapes and forms used in those solutions. Lab fee required.

*Prereq or coreq: FA 122.*

**TEDU 105 History of Industrial Technology 3 hrs**

An introduction to the history of industrial technology. The development of industry and its impact on the other arts and culture in general. Basic principles of design in industrial and home arts, and the eotechnic, paleotechnic, neotechnic and atomic periods of technology.

**TEDU 106 Processing Technology 3 hrs**

An introduction to tools, materials, and processes and their application to discrete and integrated systems of technology. Interrelationships between humans and machines will be studied to develop the student's

ability to transfer knowledge of processes from one environment to the other. Lab fee required.

*Prereq: Course work in high school and/or college chemistry or physics recommended.*

**TEDU 114 Information and Control Technology 3 hrs**

Access, manage and control information and technology through the application of technological systems. Design and construct models, devices and mechanisms that will process information and control technology through the use of machines and humans. Lab fee required.

**TEDU 118 Energy Technology 3 hrs**

Forms, sources and uses of energy for application to technology. Description of past, present and future systems that transform, transmit, store, control and utilize energy. Considers energy conservation issues. Laboratory experiences focus on experimenting with energy conversions and measurement. Lab fee required.

**TEDU 152 Arts and Crafts 3 hrs**

Experience in design and use of a wide variety of craft materials. Avocational and recreational use of craft media. Lab fee required.

**TEDU 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**TEDU 246 Safety in Technology and Industrial-Vocational Education 2 hrs**

Safety, health and environmental factors and their implications for technology and industrial-vocational educators, students, laboratories and instructional programs.

**TEDU 250 Foundations of Technology and Industrial-Vocational Education 3 hrs**

An introduction to the foundations and implementation of technology education and industrial-vocational education. Past, present and future developments in the profession will be studied through lectures, discussion, seminars, micro-teaching, school visitations and prestudent teaching activities.

**TEDU 252 Prevocational/Vocational Special Needs Program 4 hrs**

An examination of the role of special education personnel in providing career awareness, prevocational skill development, and vocational education support activities. Laboratory activities focus on the integration of these concepts on a broad continuum from elementary to secondary school programs. Lectures and field experiences will be used to illustrate a variety of programs and services. Lab fee required.

**TEDU 253 Technology Education for Children 3 hrs**

Content and methods which enable the elementary teacher to assist children in learning about the concepts, processes, systems and impacts of technology. Individual and group laboratory activities involve applications of technology with other subject areas through problem solving experiences. Lab fee required.

**TEDU 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**TEDU 350 Curriculum in Technology and Industrial-Vocational Education 3 hrs**

Curriculum bases, the derivation of content, the formulation of objectives, the selection and organization of learning activities, and the selec-

tion and development of procedures for evaluating technology and industrial-vocational education students and programs.

*Prereq: TEDU 250.*

**TEDU 354 Experiences in Technology for Children** 2 hrs  
Laboratory experiences in the use of materials, tools, processes and products of industry as utilized in the elementary and middle school. Emphasis is on individual and group learning situations relevant to integrated curriculum activities.

*Prereq: TEDU 253. Lab fee required.*

**TEDU 355 Seminar in Technology for the Elementary School** 2 hrs

Practical experiences in integrating concepts of technology with existing elementary and special education curricula. Students will design, conduct, and evaluate manipulative activities for and with children.

*Prereq: TEDU 354.*

**TEDU 358 Tools and Materials** 3 hrs

Experiences in the use of selected tools, machines and materials following contemporary therapeutic practices in occupational therapy and related professions. Lecture: two hours per week. Laboratory: two hours per week. Lab fee required.

*Prereq: Occupational Therapy major or department permission.*

**TEDU 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**TEDU 387 Cooperative Education in Technology Education** 3 hrs

Technology education majors will be placed on a job that relates to their primary area of study for one semester. During this period regular employee benefits may be received. Credit/no credit. Credit applicable to a major in technology education only.

*Prereq: Department permission.*

**TEDU 450 Solving Technological Problems** 3 hrs

A capstone experience in the technology component of the technology education curriculum. Student applies problem-solving techniques to arrive at the solution to a technological problem.

*Prereq: TEDU 350; senior standing and department approval.*

**TEDU 452 Principles of Vocational-Technical Education** 3 hrs

Concepts and principles of vocational-technical education; current issues in vocational education in Michigan.

*Prereq: TEDU 350 or department permission.*

**TEDU 460 Practicum in Technology and Industrial-Vocational Education** 2 hrs

Direct involvement in solving teaching/learning problems in technology and industrial-vocational education. Emphasis upon developing appropriate strategies for managing the classroom and laboratory environment. Concurrent with TEDU 461 and student teaching.

*Prereq: TEDU 350.*

**TEDU 461 The Teaching of Technology and Industrial-Vocational Education** 2 hrs

Examines the relationship between principles of effective learning and various methods of instruction in technology and industrial-vocational education. Emphasis upon the preparation of lessons and units of study and the evaluation of instruction. Taken concurrently with TEDU 460 and student teaching.

*Prereq: TEDU 350.*

**TEDU 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**TEDU 487 Cooperative Education in Technology Education** 3 hrs

The second in a two-course sequence for technology education majors. The students will be placed on a job that relates to their primary area of study for one semester. Regular employee benefits may be received. Credit applicable to a major in technology education only. Credit/no credit.

*Prereq: TEDU 387 and department permission.*

**TEDU 497/498/499 Directed Study—Technology Education** 1/2/3 hrs

Available to select students who have demonstrated ability to profit from a directed study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser-chair.

*Prereq: Department permission.*



# Industrial Technology

Web site: [www.emich.edu/public/cot/cot\\_inte.html](http://www.emich.edu/public/cot/cot_inte.html)

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**Professors:** Daniel J. Fields, J. Jan Jellema, Max E. Kanagy, Jonathon (Su-Chen) Lin, Walter W. Tucker, John A. Weeks

**Associate Professors:** Bob (Behrooz) Lahidji, Erik Lokensgard, Harvey Lyons, Tony (Fuh-Cwo) Shiue, Thomas G. Soyster, Pamela Speelman, Tracy S. Tillman

**Assistant Professors:** Robert E. Chapman, James Stein, Alex (Ming-En) Wang

**Instructors:** Victoria L. Gotts, Peter J. Loughney, Philip Rufe

The Industrial Technology Department offers three curricula: construction management with two majors and a minor, manufacturing with two majors and a minor, and engineering technology with two majors. In addition, two preprofessional programs are shared with the College of Arts and Sciences—prearchitecture and preengineering. Advising for these programs is provided by this department.

## Degree:

Bachelor of Science

## Programs of Study

*Construction curriculum*

### Major:

Construction management  
 Facility management

### Minor:

Construction management

*Manufacturing curriculum*

### Majors:

Computer-aided design  
 Manufacturing

#### Concentrations:

Computer-aided manufacturing  
 Manufacturing technology  
 Plastics  
 Manufacturing (transfer)

### Minor:

Manufacturing

*Engineering technology curriculum*

### Majors:

Electronic engineering technology  
 Mechanical engineering technology

#### Options:

Manufacturing  
 Design

### Preprofessional programs:

Preengineering  
 Prearchitecture

The construction management program has been accredited by the American Council for Construction Education, and the computer-aided design program and the manufacturing program with concentrations in computer-aided manufacturing, manufacturing technology, and plastics have been accredited by the National Association of Industrial Technology.

The advising procedure is posted outside the department office. It is recommended that majors see their department adviser each semester to review their program. Majors are responsible for meeting the require-

ments for graduation. A new student in the department not assigned to an adviser should call the department office at 734.487.2040 for an appointment.

## Advisers:

Computer-aided design: Tony Shiue, Pamela Speelman, Alex Wang  
 Computer-aided manufacturing: Jonathon Lin  
 Construction management: Victoria Gotts, Peter Loughney, James Stein, John Weeks

Electronics engineering technology: J. Jan Jellema

Facility management: Peter Loughney

Manufacturing (transfer): Jan Jellema, Walter Tucker

Manufacturing technology: Philip Rufe, Tracy Tillman

Mechanical engineering technology: Harvey Lyons

Plastics: Erik Lokensgard

Preengineering: Fob Lahidji

Prearchitecture: Peter Loughney

Graduate study leads to the master of science degree in industrial technology. Available areas of concentration are CAD/CAM, manufacturing, quality, and construction management. These degrees are described in the graduate catalog.

## Construction Curriculum

The construction curriculum includes course work in general education with specified science and mathematics courses, recommended business course selectives (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.

## Construction Management Major

**ISIS major code: IT07**

The construction management major is designed to prepare men and women for middle- and upper-level management in general contracting. The major has been developed in cooperation with experts from the construction industry, guidelines 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.

<b>Major in construction management:</b> .....	<b>67 hours</b>
CNST 125 Introduction to Construction .....	2
CNST 201 Construction Systems .....	3
CNST 206 Surveying .....	3
CNST 213 Construction Safety .....	3
CNST 228 Construction Drawing .....	3
CNST 229 Analysis of Commercial Prints .....	3
CNST 301 Planning and Scheduling .....	3
CNST 302 Contract Documents, Regulations, and Specifications .....	3
CNST 303 Electrical, Mechanical, and Equipment Systems .....	3
CNST 387 Cooperative Education in Construction Management .....	3
CNST 401 Construction Estimating and Bidding .....	3
CNST 402 Construction Materials .....	3
CNST 403 Production Control .....	2
CNST 406 Construction Law .....	2
CNST 450 Fundamentals of Construction Project Management .....	3
#GEOL 160 Physical Geology (satisfies general education requirement II.1 or II.3) .....	4
ACC 130 Accounting for Non-business Majors .....	3
LAW 293 Legal Environment of Business .....	3

MGMT 384 Human Resource Management .....	3
Construction management restricted elective .....	3
<i>(Adviser approval required)</i>	
Math/science restricted elective .....	3
<i>(Adviser approval required)</i>	
Business restricted elective .....	6
<i>(Adviser approval required)</i>	
FIN 350 Principles of Finance .....	3
FIN 352 Financial Management for Entrepreneurs .....	3
FIN 358 Analysis of Financial Statements .....	3
LAW 393 Law of Business Enterprises .....	3
LAW 403 Employment Law .....	3
MGMT 202 Business Communication .....	3
MGMT 386 Organizational Behavior and Theory .....	3
MGMT 460 Management Skills .....	3
MGMT 484 Management-Union Relations .....	3
MKTG 360 Principles of Marketing .....	3
#IS 215 End-User Computing (satisfies general education requirement I.5) .....	3
DS 265 Business Statistics I .....	3

*#Advising note:* 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.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/inte/ugrad/major/const.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/inte/ugrad/major/const.html).

## Facility Management Curriculum

### ISIS major code: IT12

Facility management is the practice of coordinating the workplace with the people and work of the organization; it integrates the principles of business administration, architecture, and the behavioral and engineering sciences. Students completing this curriculum have met major and minor requirements for graduation.

### Major in facility management: ..... 54 hours

IDE 111 Human Factors and Special Needs .....	3
CNST 201 Construction Systems .....	3
FMGT 202 Introduction to Facility Management .....	3
CNST 228 Construction Drawing .....	3
CNST 229 Analysis of Commercial Prints .....	3
FMGT 230 Facility Operations and Maintenance .....	3
LAW 293 Legal Environment of Business .....	3
CNST 301 Planning and Scheduling .....	3
CNST 302 Contract Documents, Regulations, and Specifications .....	3
IDE 313 Space Planning and Specifications .....	3
IDE 364 Facility Management .....	3
INDT 387 Cooperative Education in Interdisciplinary Technology .....	3
CNST 401 Construction Estimating and Bidding .....	3
FMGT 416 Managing Utilities, Lighting Systems, and Code Compliance .....	3
FMGT 417 Computer-Aided Facility Management .....	3
FMGT 418 Building Automation Systems .....	3
FMGT 432 Senior Seminar in Facility Management .....	3
IDE 469 Strategic Planning and Research for Facility Management .....	3

*#Advising note:* 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.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/inte/ugrad/major/fmgt.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/inte/ugrad/major/fmgt.html).

## Computer-Aided Design Major

### ISIS major code: IT02

Individuals majoring in CAD are prepared for a wide range of computer-related job opportunities. Graduates are employed in industry as CAD engineers, product engineers, software development engineers, application programmers, technical support engineers, CAD/CAM system managers, training consultants, and entry-level designers, as well as in equipment sales and support. The applications of CAD are becoming more diverse, and are found in many areas, such as architecture, medicine, geographic information systems, facilities management, product presentation, and computer animation.

The CAD major includes a core of manufacturing courses designed to provide a well-rounded graduate with extensive hands-on experience. Engineering graphics courses are included to provide an understanding of the process involved in producing design models on the computer. In the CAD courses, students gain knowledge and hands-on experience in the following four technical areas: (1) interactive 2-D and 3-D wireframe drawing, geometric dimensioning and tolerancing, solid modeling, and surfacing; (2) interactive 2-D and 3-D computer graphics programming for business graphics, animation, and CAD drawings involving menu and icon development and database management; (3) CAD management involving an extensive knowledge of microcomputer applications, CAD software installation, peripheral interfaces and customization, and; (4) applied mechanics, kinematics and design, and finite element analysis.

### Major in CAD: ..... 60 hours

CADM 106 Industrial Computer Applications for Manufacturing .....	3
CADM 122 Engineering Graphics I .....	3
CADM 223 Engineering Graphics II .....	3
CADM 231 Computer Graphics Programming .....	3
CADM 324 Industrial Drawing .....	3
CADM 325 Applied Mechanics, Kinematics, and Design ...	3
CADM 331 Interactive CAD Programming .....	3
CADM 387 Cooperative Education in CAD/CAM Technology .....	3
CADM 432 3-D Feature-Based Modeling and Surfacing Techniques .....	3
CADM 433 Advanced Computer-Aided Design .....	3
CADM 435 Finite Element Analysis .....	3
#COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) .....	3
COSC 250 Programming for CAD/CAM .....	3
MFG 103 Introduction to Automation .....	3
MFG 123 Manufacturing Processes and Methods I .....	3
MFG 124 Manufacturing Processes and Methods II .....	3
MFG 203 Industrial Operation .....	3
MFG 316 Design for Manufacturing and Tooling .....	3
A course in technical management .....	3
Elective (must be approved by adviser) .....	3

*#Advising note:* This course satisfies both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take this course, or an approved substitute from another institution, as part of the general education requirements.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/inte/ugrad/major/cad.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/inte/ugrad/major/cad.html).

## Engineering Technology Curriculum

The engineering technology curriculum is based on engineering theory with emphasis on application and implementation skills. The curriculum includes University general education, the engineering technology core, and majors in electronic engineering technology (EET) and mechanical engineering (MET). The MET major contains options in design or manufacturing. 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.

### Electronic Engineering Technology Major

**ISIS major code: IT10**

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. Program requirements are as follows:

<b>Major</b> .....	<b>73 hours</b>
<i>Engineering technology core</i> .....	<i>19 hours</i>
CADM 122 Engineering Graphics I .....	3
ELEC 200 Circuit Analysis I .....	3
#MATH 121 Calculus II (satisfies general education requirement I.4) .....	4
PHY 224 Electricity and Light .....	5
PHY 230 Engineering Dynamics .....	4
<i>EET major</i> .....	<i>54 hours</i>
CADM 426 Manufacturing Communication Systems .....	3
CADM 427 Advanced Industrial Control .....	3
COSC 238 Computer Science II .....	3
ELEC 210 Circuit Analysis II .....	3
ELEC 214 Digital Circuit Analysis I .....	3
ELEC 215 Computer-Aided Electronics .....	3
ELEC 218 Motors and Controls .....	3
ELEC 300 Analog Circuit Analysis I .....	3
ELEC 310 Analog Circuit Analysis II .....	3
ELEC 314 Digital Circuit Analysis II .....	3
ELEC 320 Microcomputer Circuits .....	3
ELEC 387 Cooperative Education in Electronic Technology .....	3
ELEC 415 Communication Circuits .....	3
ELEC 420 Advanced Microprocessors .....	3
ELEC 450 Senior Design Project .....	3
#MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) .....	3
MFG 318 Fluid Power .....	3
QUAL 420 Industrial Quality Control .....	3

*#Advising note:* 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.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaaf/colleges/cot/inte/ugrad/major/eet.html](http://www.emich.edu/public/catalogs/current/acaaf/colleges/cot/inte/ugrad/major/eet.html).

## Mechanical Engineering Technology Major

**ISIS major code: IT11**

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 with an option in design or manufacturing as described below.

**Design Option**

**ISIS major code: IT1102**

The design option within the MET program emphasizes the design aspect of MET in a wide range of programming, modeling and analysis that includes kinematic modeling, finite element analysis and 3-D CAD/CAM/CAE. This option furnishes the fundamental theoretical foundation with emphasis on realistic technical problem solving and projects. The design option culminates with a capstone design project that provides a comprehensive, pre-professional design experience.

**Manufacturing Option**

**ISIS major code: IT1101**

The manufacturing option within the MET program emphasizes critical areas of the manufacturing enterprise such as manufacturing engineering analysis, motors and controls, industrial quality control and process planning. This option furnishes the fundamental technical foundation that is concerned with the design and use of manufacturing systems in the industrial environment. The manufacturing option culminates in a manufacturing enterprise capstone project that includes the functional development and management of manufacturing enterprises.

**Major** .....

**71 hours**

<i>Engineering technology core</i> .....	<i>19 hours</i>
CADM 122 Engineering Graphics I .....	3
ELEC 200 Circuit Analysis I .....	3
#MATH 121 Calculus II (satisfies general education requirement I.4) .....	4
PHY 224 Electricity and Light .....	5
PHY 230 Engineering Dynamics .....	4
<i>MET major</i> .....	<i>37 hours</i>
CADM 211 Statics .....	3
CADM 223 Engineering Graphics II .....	3
CADM 319 Fluid Mechanics .....	3
CADM 361 Computer Numerical Control .....	3
CADM 387/MFG 387 Cooperative Education .....	3
CADM 411 Mechanical/Machine Design .....	3
MFG 111 Materials .....	3
MFG 123 Manufacturing Processes and Methods I .....	3
MFG 124 Manufacturing Processes and Methods II .....	3
MFG 316 Design for Manufacturing and Tooling .....	3
PHY 229 Strength and Elasticity of Materials .....	4
PHY 360 Heat and Thermodynamics .....	3
<i>Design option</i> .....	<i>15 hours</i>
CADM 334 3-D Computer-Aided Design Modeling .....	3
CADM 435 Finite Element Analysis .....	3
CADM 436 Kinematic Modeling and Analysis .....	3
CADM 475 3-D CAD/CAM/CAE .....	3
CADM 491 Design Capstone .....	3
<i>Manufacturing option</i> .....	<i>15 hours</i>
ELEC 218 Motors and Controls .....	3
MFG 203 Industrial Operation .....	3

MFG 421 Manufacturing Engineering Analysis .....	3
MFG 490 Manufacturing Enterprise Capstone .....	3
QUAL 420 Industrial Quality Control .....	3

**#Advising note:** 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.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/cot/inte/ugrad/major/met.html](http://www.emich.edu/public/catalogs/current/afac/colleges/cot/inte/ugrad/major/met.html).

## Manufacturing Curriculum

The manufacturing curriculum includes course work in general education with specified science and mathematics courses, manufacturing core courses, and major courses in computer-aided design (CAD), computer-aided manufacturing (CAM), manufacturing and plastics technology. A minor is not required.

The manufacturing major consists of four concentrations: computer-aided manufacturing, manufacturing technology, plastics and manufacturing (transfer). Majors must complete the general education requirements outlined below plus requirements in one of the concentrations.

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.

## Manufacturing Major—Manufacturing Technology Concentration

**ISIS major code: IT04**

The manufacturing technology concentration includes a core of fundamental manufacturing courses designed to produce a well-rounded graduate with hands-on experience. In advanced courses, students gain knowledge and skills in mechanical and tool design, fluid power systems, quality control, robotics, and control technologies for machines, processes, and manufacturing operations management. A number of our graduates have become certified as manufacturing technologists or manufacturing engineers by the Society of Manufacturing Engineers.

<b>Major in manufacturing technology:</b> .....	<b>60 hours</b>
MFG 103 Introduction to Automation .....	3
CADM 106 Industrial Computer Applications for Manufacturing .....	3
CADM 122 Engineering Graphics I .....	3
MFG 123 Manufacturing Processes and Methods I .....	3
MFG 124 Manufacturing Processes and Methods II .....	3
ELEC 200 Circuit Analysis I .....	3
MFG 203 Industrial Operation .....	3
ELEC 218 Motors and Control .....	3
CADM 223 Engineering Graphics II .....	3
MFG 316 Design for Manufacturing and Tooling .....	3
MFG 318 Fluid Power .....	3
CADM 325 Applied Mechanics, Kinematics, and Design ...	3
CADM 361 Computer Numerical Control .....	3
MFG 387 Cooperative Education in Manufacturing Technology .....	3

QUAL 420 Industrial Quality Control .....	3
MFG 421 Manufacturing Engineering Analysis .....	3
CADM 425 Advanced Manufacturing Methods .....	3
MFG 490 Manufacturing Enterprise Capstone .....	3
ACC 130 Accounting for Non-business Majors .....	3

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/cot/inte/ugrad/major/manutech.html](http://www.emich.edu/public/catalogs/current/afac/colleges/cot/inte/ugrad/major/manutech.html).

## Manufacturing Major—Plastics Concentration

**ISIS major code: IT06**

The plastics concentration is designed to prepare men and women for a wide range of technical positions in the plastics processing industry. Graduates have a general understanding of the plastics industry, polymer materials, common plastics processes, and finishing and decorating techniques. Graduates are employed as cost estimators, sales and marketing representatives, production schedulers, mold designers, process engineers, product engineers, production supervisors, and quality control supervisors, as well as in their related technical specialties.

<b>Major in plastics:</b> .....	<b>60</b>
CADM 106 Industrial Computer Applications for Manufacturing .....	3
CADM 122 Engineering Graphics I .....	3
MFG 123 Manufacturing Processes and Methods I .....	3
MFG 124 Manufacturing Processes and Methods II .....	3
ELEC 200 Circuit Analysis I .....	3
MFG 111 Materials .....	3
MFG 112 Plastics .....	3
MFG 203 Industrial Operation .....	3
ELEC 218 Motors and Control .....	3
CADM 223 Engineering Graphics II .....	3
MFG 306 Plastic Processing .....	3
MFG 318 Fluid Power .....	3
MFG 387 Cooperative Education in Manufacturing Technology .....	3
MFG 409 Plastics Mold Design and Construction .....	3
MFG 410 Plastics Product Design .....	3
MFG 411 Plastics Fabricating and Decorating .....	3
QUAL 420 Industrial Quality Control .....	3
CHEM 270 Organic Chemistry .....	4
CHEM 271 Organic Chemistry Laboratory .....	1
INDT 310 Polymers for Engineers and Technologists .....	3
Restricted electives: .....	4

For a current curriculum, go to [www.emich.edu/public/catalogs/current/afac/colleges/cot/inte/ugrad/major/manuplas.html](http://www.emich.edu/public/catalogs/current/afac/colleges/cot/inte/ugrad/major/manuplas.html).

## Manufacturing Major—Manufacturing (Transfer) Concentration

**ISIS major code: IT05**

The manufacturing transfer concentration is designed to serve those individuals who wish to continue their manufacturing-related community college education and seek a bachelor's degree. It is especially designed to accommodate the needs of students transferring from community colleges with a technical associate's degree. The concentration includes course work in general education, some specified science and mathematics courses, and additional adviser-approved manufacturing-related technical course work at the upper level.

<b>Major in manufacturing (transfer):</b> .....	<b>55</b>
Restricted electives at the 100-400 level: .....	6
Restricted EMU MFG electives at the 300-400 level: .....	15



Maximum of 34 transfer hours of technical courses: ..... 34

*Note: 12 hours from above must be from approved technical management courses*

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/inte/ugrad/major/manutrans.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/inte/ugrad/major/manutrans.html).

## Manufacturing Major—Computer-Aided Manufacturing Concentration

**ISIS major code: IT03**

The computer-aided manufacturing concentration combines instructional experiences in robotics, control and power systems, and numerical control. The concentration is designed to prepare individuals for supervisory and management positions in automated plants and factories for both today and the future.

<b>Major in CAM:</b> .....	<b>60</b>
MFG 103 Introduction to Automation .....	3
CADM 106 Industrial Computer Applications for Manufacturing .....	3
CADM 122 Engineering Graphics I .....	3
MFG 123 Manufacturing Processes and Methods I .....	3
MFG 124 Manufacturing Processes and Methods II .....	3
ELEC 200 Circuit Analysis I .....	3
MFG 203 Industrial Operation .....	3
ELEC 218 Motors and Controls .....	3
CADM 223 Engineering Graphics II .....	3
MFG 316 Design for Manufacturing and Tooling .....	3
MFG 318 Fluid Power .....	3
CADM 324 Industrial Drawing .....	3
CADM 361 Computer Numerical Control .....	3
CADM 387 Cooperative in CAD/CAM Technology .....	3
QUAL 420 Industrial Quality Control .....	3
CADM 425 Advanced Manufacturing Methods .....	3
CADM 426 Manufacturing Communication Systems .....	3
CADM 485 Flexible Manufacturing Systems .....	3
Select two of three courses: .....	6
ACC 130 Accounting for Non-business Majors (3) .....	
CADM 427 Advanced Industrial Control (3) .....	
CADM 461 CAD/CAM NC Programming (3) .....	

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/inte/ugrad/major/manucam.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/inte/ugrad/major/manucam.html).

## Construction Management Minor

**ISIS minor code: IT01**

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 course work.

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 Industrial Technology Department. A maximum of six credit hours may be transferred from outside the department.

CNST 125 Introduction to Construction .....	2
CNST 201 Construction Systems .....	3
CNST 228 Construction Drawing .....	3
CNST 229 Analysis of Commercial Prints .....	3
CNST 301 Planning and Scheduling .....	3
CNST 302 Contract Documents, Regulations, and Specifications .....	3

CNST 401 Construction Estimating and Bidding .....

CNST 402 Construction Materials .....

**Total:** ..... **23 hours**

## Manufacturing Minor

**ISIS minor code: IT02**

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 course work.

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 Industrial Technology Department. A maximum of six credit hours may be transferred from outside the department.

**Required courses:** .....

MFG 203 Industrial Operation .....

**Restricted electives:** .....

Select an additional 18 hours from the following courses:

\*#CADM 105 Computer Applications for Industry (satisfies general education requirement I.5) (3)

CADM 122 Engineering Graphics I (3)

MFG 123 Manufacturing Processes and Methods I (3)

MFG 124 Manufacturing Processes and Methods II (3)

ELEC 200 Circuit Analysis I (3)

MFG 112 Plastics (3)

ELEC 218 Motors and Controls (3)

CADM 223 Engineering Graphics II (3)

INDT 231 Introduction to Computer Graphic Systems (3)

CADM 231 Computer Graphics Programming (3)

MFG 318 Fluid Power (3)

CADM 324 Industrial Drawing (3)

*\*Not open to students who have completed the computer literacy requirement of general education.*

**Total:** ..... **21 hours**

## Prearchitecture Program

**ISIS major code: IT09**

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

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

**Required courses:** .....

#ENGL 121 English Composition (satisfies general education requirement I.1) .....

#CTAS 121 Fundamentals of Speech (satisfies general education requirement I.2) Fundamentals of Speech ....

#MATH 120 Calculus I (satisfies general education requirement I.4) .....

#MATH 121 Calculus II (satisfies general education requirement I.4) .....

#COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) .....

#CHEM 117-CHEM 118 Fundamentals of Chemistry with lab (satisfies general education requirement II.1 or II.3) .....	4
#PHY 223 Mechanics, Sound, and Heat (satisfies general education requirement II.3) .....	5
PHY 224 Electricity and Light .....	5
#PLSC 112/#PLSC 113 American Government (satisfies general education requirement III.1) .....	3
#HIST 123 The United States to 1877 (satisfies general education requirement III.2) .....	3
#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	3
#ECON 202 Principles of Economics II (if #ECON 201 is taken, satisfies general education requirement III.4) ....	3
#PHIL 130 Introduction to Logic (satisfies general education requirement IV.3) (or approved alternative) .....	3
#FA 123 Drawing I (satisfies general education requirement IV.4), dance, music or theatre arts course .....	3
FA 231 Three-Dimensional Design .....	3
Two literature courses .....	6
<b>Recommended course (course may not transfer):</b> .....	2
CNST 125 Introduction to Construction .....	2

## Preengineering Program

### ISIS major code: IT08

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

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

<b>Required courses:</b> .....	35
#ENGL 121 English Composition (satisfies general education requirement I.1) .....	3
#MATH 120 Calculus I (satisfies general education requirement I.4) .....	4
#MATH 121 Calculus II (satisfies general education requirement I.4) .....	4
#MATH 122 Elementary Linear Algebra (satisfies general education requirement I.4) .....	3
MATH 223 Multivariable Calculus .....	4
#CHEM 121-CHEM 122 General Chemistry I with lab (satisfies general education requirement II.1 or II.3) ...	4
#PHY 223 Mechanics, Sound, and Heat (satisfies general education requirement II.3) .....	5
PHY 224 Electricity and Light .....	5
One literature course .....	3
<b>Recommended courses:</b> .....	21
One of: (satisfies general education requirement I.5) .....	3
#COSC 137 Introduction to FORTRAN Programming (3)	
#COSC 237 Computer Programming and Numeric Methods (3)	
#CTAS 121 Fundamentals of Speech (satisfies general education requirement I.2) .....	3
#ECON 201 Principles of Economics I (satisfies general education requirement III.3) .....	3

#ECON 202 Principles of Economics II (satisfies general education requirement III.4) .....	3
#ENGL 225 Intermediate English Composition (satisfies general education requirement I.3) .....	3
Second literature course .....	3
One humanities course .....	3
<b>Optional courses:</b> .....	3
CADM 122 Engineering Graphics I (3)	
CADM 223 Engineering Graphics II (3)	

## CAD/CAM Courses

**CADM 101 Introduction to Industrial Drawing** 3 hrs  
An introductory mechanical drawing course emphasizing lettering, measuring, geometric construction, sketching, equipment usage, pictorials, orthographic projection and dimensioning. This course is intended for students without previous drafting experience. Lecture and laboratory course. This course does not count toward a CAD/CAM major.

**CADM 105 Computer Applications for Industry** 3 hrs  
Provides the theory, general applications, and specific applications of microcomputers. Students are exposed to software packages commonly used for general and specific applications in industry. Lecture and laboratory course.

**CADM 106 Industrial Computer Applications for Manufacturing** 3 hrs  
This course presents advanced DOS commands and concepts appropriate for microcomputers configured for CAD/CAM and other similar industrial applications. Lecture and laboratory course.  
*Prereq: A course in computer literacy.*

**CADM 122 Engineering Graphics I** 3 hrs  
A mechanical drawing course emphasizing orthographic projection, pictorial representation, dimensioning, sectional and auxiliary views, computer-aided drafting, mechanical fasteners and working drawings. Lecture and laboratory course.  
*Prereq: CADM 101 or one year of high school drafting.*

**CADM 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**CADM 211 Statics** 3 hrs  
This course is an applied and analytical study of structural components in static equilibrium with emphasis on engineering applications. Topics include force resultants, moments, trusses, frames, centroids and moments of inertia.  
*Prereq: PHY 221, MATH 120.*

**CADM 223 Engineering Graphics II** 3 hrs  
Engineering Graphics II is an advanced drawing course designed as a continuation of Engineering Graphics I. Units of instruction include fit classifications, geometric dimensioning and tolerancing, gears, cams, revolution, intersection, and development. Lecture and laboratory course.  
*Prereq: MATH 107 and CADM 122.*

**CADM 231 Computer Graphics Programming** 3 hrs  
A series of computer graphics programs illustrate graphics algorithms and terminology. Students write similar computer programs using graphics functions. Topics include computer graphics, multi-view drawings, multi-axis rotations, CAD databases, animation and interactive programming. Lecture and laboratory course.  
*Prereq: MATH 107 and a course in C programming.*

- CADM 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- CADM 319 Fluid Mechanics** 3 hrs  
An analytical and mathematical study of fluids under all conditions of rest and motion. The emphasis is on physical concepts rather than mathematical manipulation. Topics include fluid statics, kinematics of fluid motion, incompressible and compressible flow, impulse-momentum principle, fluid flow in pipes and open channels, and fluid measurement.  
*Prereq: PHY 221, MATH 120, CADM 211.*
- CADM 324 Industrial Drawing** 3 hrs  
An examination and application of engineering design and drawing using three-dimensional wireframe and solids techniques. Computer-aided design systems will be used to produce designs and drawings. Lecture and laboratory course.  
*Prereq: CADM 223.*
- CADM 325 Applied Mechanics, Kinematics, and Design** 3 hrs  
The study of mechanical devices, the forces to which they are subjected and systems design considerations. Topics include statistics, dynamics, and modification of mechanisms. Lecture and laboratory course.  
*Prereq: PHY 221 and CADM 223.*
- CADM 331 Interactive CAD Programming** 3 hrs  
Students develop an interactive CAD software package. Principles of software design, the use of graphics hardware and the generating, modifying, and transforming of CAD entities and databases are included. Lecture and laboratory course.  
*Prereq: CADM 231.*
- CADM 334 3-D Computer-Aided Design Modeling** 3 hrs  
This course provides the advanced CAD user with an in-depth understanding and skill of constructing and integrating 3-D solid modeling and surfacing techniques into part modeling, assembly, and animation using commercial CAD software.  
*Prereq: CADM 122 and CADM 223.*
- CADM 360 CIM Operations** 3 hrs  
Concepts, components, and application of computer-based industrial automation. The integration and implications of CAD, CAM, and business functions into CIM are included. This course does not count toward a CAD/CAM major.  
*Prereq: MFG 103 and MFG 203.*
- CADM 361 Computer Numerical Control** 3 hrs  
NC programming for both CNC mill and lathe. The transfer of part descriptions into a detailed process plan, tool selection, and finally into NC machine codes. Computer-assisted programming, APT, and CAD/CAM for 2-D machining is emphasized. Verification is accomplished by laboratory work.  
*Prereq: MATH 107, CADM 106, MFG 124, and CADM 223.*
- CADM 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- CADM 387 Cooperative Education in CAD/CAM Technology** 3 hrs  
Industrial technology majors will be placed on a job that relates to their primary area of study, for one semester. During this period regular employee benefits may be received. Credit/no credit. Credit applicable to the major in industrial technology or industrial teacher education only.  
*Prereq: Department permission.*
- CADM 411 Mechanical/Machine Design** 3 hrs  
A study of the decision-making processes which mechanical engineers use in the formulation of plans for the physical realization of machines, devices, and systems. Topics include the phases of design, codes and standards, stress analysis, failure criteria, design for fatigue strength, and the design of mechanical elements.  
*Prereq: MFG 123, COSC 137, CADM 211, PHY 229.*
- CADM 417 Industrial Robotics** 3 hrs  
The nature and use of industrial robotics: capabilities, equipment and associated hardware, justification, preparation and installation, launching, and monitoring. Lecture and laboratory course.  
*Prereq: CADM 106, MFG 203, ELEC 218, and MFG 318.*
- CADM 425 Advanced Manufacturing Methods** 3 hrs  
The course emphasizes computerized methods of planning, material handling, machining cells and inspection. Lecture and laboratory course.  
*Prereq: MFG 103, MFG 123, MFG 124, MFG 203, and ELEC 218.*
- CADM 426 Manufacturing Communication Systems** 3 hrs  
An overview of the computerization of information related to manufacturing production. Class will emphasize functional specification and installation problems of computer-integrated manufacturing communications systems. Lecture and laboratory course.  
*Prereq: CADM 106, MFG 123, MFG 124, MFG 203, and ELEC 218.*
- CADM 427 Advanced Industrial Control** 3 hrs  
The application of electricity, electronics, programmable logic controller, data acquisition, and analysis techniques to the open-loop and closed-loop control of machines and processes. Emphasis will be given to utilizations of computers and programmable logic controllers for industrial control purposes. Lecture and laboratory course.  
*Prereq: ELEC 218 and MFG 318.*
- CADM 432 3-D Feature-Based Modeling and Surfacing Techniques** 3 hrs  
Students learn and practice 3-D feature-based part modeling and surfacing techniques on a high-performance 3-D CAD system. Advanced modeling techniques and assemblies will be presented. Lecture and laboratory course.  
*Prereq: CADM 223.*
- CADM 433 Advanced Computer-Aided Design** 3 hrs  
Advanced computer-aided design course that focuses on software installation and customization. AutoLISP programming, CAD database exchange and CAD resource management. Lecture and laboratory course.  
*Prereq: CADM 223 and CADM 231.*
- CADM 435 Finite Element Analysis** 3 hrs  
Finite Element Analysis (FEA) is a powerful tool used by industries to solve many engineering problems. Basic concepts of this technique will be introduced and the students will have hands-on experience to analyze heat transfer, beam deflection, and stress and strain problems by using several different software packages. Lecture and laboratory course.  
*Prereq: CADM 325 or instructor permission.*
- CADM 436 Kinematic Modeling and Analysis** 3 hrs  
A study of the design and building of computer models of physical systems such as mechanical mechanisms and devices. Computer simulation is used for analysis of behavior such as displacement, velocity, and acceleration and compared with results using traditional graphics and analytical methods.  
*Prereq: CADM 211; CADM 223, PHY 230.*

**CADM 461 CAD/CAM NC Programming 3 hrs**

Study of conversion of part descriptions to numerical control programs for mill, lathe, and three-axis machining center. Advanced APT and CAD/CAM NC programming for producing the instruction codes necessary to manufacture parts with NC machine tools are emphasized. Verification of the computer assisted NC programs are accomplished by laboratory work.

*Prereq: CADM 361.*

**CADM 475 3-D CAD/CAM/CAE 3 hrs**

A study of the integrated 3-D CAD/CAM/CAE approach to planning, designing, and manufacturing a mechanical part. Parts are created on a 3-D CAD system, analyzed using finite element analysis software, and processed by CAM software for tool path programming.

*Prereq: CADM 334, CADM 361, CADM 435.*

**CADM 477/478/479 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CADM 485 Flexible Manufacturing Systems 3 hrs**

Design and implementation of a flexible manufacturing cell. Machining materials, material handling and storage, inspection, and inventory are emphasized. Part programming using numerical control, robotics/programmable automation programming, development of a manufacturing database, and hierarchical computer control. Lecture and laboratory course.

*Prereq: MFG 316, CADM 324, CADM 361, QUAL420, and CADM 425.*

**CADM 487 Cooperative Education in CAD/CAM Technology 3 hrs**

The second in a two-course sequence for industrial technology majors. The students will be placed on a job that relates to their primary area of study, for one semester. Regular employee benefits may be received. Graded credit/no credit.

*Prereq: CADM 387 and department permission.*

**CADM 491 Design Capstone 3 hrs**

A synthesis of all previous academic coursework for the development of a fully defined new product in a team work environment, using CAD/CAE system and integrated design methodology for the product design process. Technical reports and presentations are required.

*Prereq: COSC 250, ENGL 324, CADM 361, CADM 411, CADM 435, CADM 436. Coreq: CADM 475.*

**CADM 494/495/496 Industry-Based Special Topics 1/2/3 hrs**

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. Credit/no-credit.

**CADM 497/498/499 Independent Study 1/2/3 hrs**

Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.

*Prereq: Department permission.*

### Construction Management Courses

**CNST 125 Introduction to Construction 2 hrs**

Developing, planning, and scheduling of construction projects. Site development, material usage, specifications, estimating, and managing cost control are included.

**CNST 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CNST 201 Construction Systems 3 hrs**

Structural systems, associated nonstructural components, and considerations appropriate to mechanical, electrical, plumbing, and support equipment. Lecture and laboratory course.

*Prereq: CNST 125 and CNST 228. For Construction Management majors only.*

**CNST 206 Surveying 3 hrs**

The fundamental use of the transit and level. Linear measurement, angle measurements, extending straight lines, differential and profile leveling, a simple transverse survey, and the keeping of accurate notes. Lecture and laboratory course.

*Prereq: MATH 107.*

**CNST 213 Construction Safety 3 hrs**

Philosophical, social, economic, and technological bases for safety related to the development of a construction job-site safety plan. Emphasis is also placed on the OSHA and MIOSHA construction industry standards.

**CNST 228 Construction Drawing 3 hrs**

Basic print reading skills. Symbols, terminology, print organization, and basic material take-off techniques. Sketching and some basic drawing skills required. Lecture and laboratory course.

**CNST 229 Analysis of Commercial Prints 3 hrs**

Development of the ability to read and interpret prints. Actual commercial prints and project manuals are used for analysis and material take-off procedures. Preparation of field drawings using graph paper and sketching techniques. Lecture and laboratory course.

*Prereq: CNST 228 or department permission.*

**CNST 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CNST 301 Planning and Scheduling 3 hrs**

The planning process of the construction industry. Various scheduling systems commonly used within the industry.

*Prereq: CADM 105 and CNST 201.*

**CNST 302 Contract Documents, Regulations, and Specifications 3 hrs**

The different types of construction contracts, construction documents and regulations, the role of specifications, and the project manual in the construction process.

*Prereq: CNST 201 and LAW 293, or department permission.*

**CNST 303 Electrical, Mechanical, and Equipment Systems 3 hrs**

This course provides an understanding of mechanical, electrical, plumbing, drain-waste-vent, equipment considerations, and other specialized nonstructural systems found in commercial buildings:

*Prereq: CNST 201 and CNST 228.*

**CNST 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*



**CNST 387 Cooperative Education in Construction****Management****3 hrs**

Construction management majors will be placed on a job that relates to their primary area of study, for one semester. During this period regular employee benefits may be received. Credit/no credit. Credit applicable to the major in construction management only.

*Prereq: Department permission.*

**CNST 401 Construction Estimating and Bidding****3 hrs**

The principles and procedures for developing estimates, bids, and contracts for residential and commercial construction.

*Prereq: CNST 201 and CNST 229.*

**CNST 402 Construction Materials****3 hrs**

The characteristics, specifications, and applications of basic construction materials such as stone, concrete, wood, glass, plastics, metals and bituminous products. Lecture and laboratory course.

*Prereq: CNST 201.*

**CNST 403 Production Control****2 hrs**

Methods of control used in the construction industry for production problems involving the estimate, bidding schedules, cost analysis, cost comparison, scheduling systems, evaluation and debriefing.

*Prereq: CNST 301, CNST 401, and ACC 130.*

**CNST 406 Construction Law****2 hrs**

Common basic legal problems associated with construction contracting. Current areas of concern and the significant implications are covered.

*Prereq: CNST 302 and LAW 293.*

**CNST 450 Fundamentals of Construction Project****Management****3 hrs**

Students combine many previous concepts and skills into a single comprehensive project that includes estimating, scheduling, production control techniques and documentation procedures. Lecture and laboratory course.

*Prereq: CNST 301, CNST 302, CNST 401, and MGMT 384.*

**CNST 477/478/479 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**CNST 487 Cooperative Education in Construction****Management****3 hrs**

The second in a two-course sequence for construction management majors. The students will be placed on a job that relates to their primary area of study, for one semester. Regular employee benefits may be received. Graded credit/no credit.

*Prereq: CNST 387 and department permission.*

**CNST 494/495/496 Industry -Based Special Topics****1/2/3 hrs**

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company.

**CNST 497/498/499 Directed Study in Construction Management****Techniques****1/2/3 hrs**

Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.

*Prereq: Department permission.*

**Electronic Technology Courses****ELEC 177/178/179 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**ELEC 200 Circuit Analysis I****3 hrs**

A first course in the fundamentals of circuit analysis and design. Kirchoff's and Ohm's Laws. Thevenin and Norton network theorems, with primary emphasis on DC circuits. Electronic instruments, laboratory data collection and report writing are also emphasized. Simulation software is used for computer assisted learning.

*Prereq: MATH 105 and MATH 107. Coreq: MATH 112.*

**ELEC 210 Circuit Analysis II****3 hrs**

The second course in the study of the fundamentals of circuit analysis and design. Emphasis to AC circuits with consideration of steady-state and transient waveform analysis, using Laplace transform and Fourier methods. Laboratory data collection and report writing. Simulation software is used.

*Prereq: ELEC 200. Coreq: MATH 120.*

**ELEC 214 Digital Circuit Analysis I****3 hrs**

The study of combinational and sequential circuits, logic families and design procedures. Simulation software is used for computer-assisted learning. Lab exercises with typical circuits data collection and report writing.

*Prereq: ELEC 200.*

**ELEC 215 Computer-Aided Electronics****3 hrs**

This course will introduce the student to the computers and software used for electronic circuit design and layout. CAD tools are used to develop block diagrams, electronic symbols, component representation, layout and assemblies.

**ELEC 218 Motors and Controls****3 hrs**

The study of DC and AC motor theory, operation and control. Power, energy, efficiency and applications of motors and motor control circuitry are featured.

*Prereq: ELEC 200.*

**ELEC 219 Techniques of Energy Control****3 hrs**

An introduction to the use of tools, materials, machines, equipments, supplies, and mechanisms utilized in power mechanics for energy control. Lecture and laboratory course.

**ELEC 277/278/279 Special Topics****1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**ELEC 300 Analog Circuit Analysis I****3 hrs**

The study of the fundamentals of discrete solid state devices and linear integrated circuits. The concepts of instrumentation and control applications are included. Data collection and report writing are required.

*Prereq: ELEC 210. Coreq: MATH 120.*

**ELEC 310 Analog Circuit Analysis II****3 hrs**

The continuation of analog circuit design and analysis, including operational amplifiers, filters and phase-locked-loops. Laboratory exercises, data collection and report writing are included; and simulation software is used for enhanced learning.

*Prereq: ELEC 300. Coreq: MATH 121.*

**ELEC 314 Digital Circuit Analysis II** 3 hrs

The continuation of digital circuit design and analysis. Laboratory exercises with circuitry interfaced to a personal computer and report writing. Simulation software is also used.

*Prereq: ELEC 214.*

**ELEC 320 Microcomputer Circuits** 3 hrs

Circuit design and principles are considered, including address-control-data lines in microprocessors, memory and interfacing. Machines and other programming languages are used in laboratory exercises.

*Prereq: ELEC 310 and ELEC 314. Coreq: COSC 138.*

**ELEC 377/378/379 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**ELEC 387 Cooperative Education in Electronic Technology** 3 hrs

An industrial experience in some facet of business or industry where the primary work emphasis is related to electronic engineering technology. During this period employee benefits may be received. Credit/no credit.

*Prereq: Department permission.*

**ELEC 415 Communication Circuits** 3 hrs

The principles of communication circuits and systems are studied, including oscillations, amplifiers, modulation, antennas and transmission lines. Information theory, voice and data communications are considered also.

*Prereq: ELEC 310. Coreq: ELEC 314.*

**ELEC 420 Advanced Microprocessors** 3 hrs

Further study of microprocessors and interfacing applications. Use of personal computers as the platform for data collection, instrumentation and control applications.

*Prereq: ELEC 320.*

**ELEC 450 Senior Design Project** 3 hrs

This course is intended to be the capstone activity for the student; includes a proposal phase, development phase and final project, using the skills learned throughout the program.

*Prereq: ELEC 320 and ELEC 415.*

**ELEC 477/478/479 Special Topics** 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**ELEC 487 Cooperative Education in Electronic Technology** 3 hrs

The second industrial experience for electronic technology majors. The students will be placed on a job that relates to their primary area of study, for one semester. Regular employee benefits may be received. Graded credit/no credit.

*Prereq: ELEC 387 and department permission.*

**ELEC 494/495/496 Industry-Based Special Topics** 1/2/3 hrs

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. Credit/no-credit.

**ELEC 497/498/499 Independent Study** 1/2/3 hrs

Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.

*Prereq: Department permission.*

**Facility Management Courses****FMGT 202 Introduction to Facility Management** 3 hrs

The student will gain an overview of the facility management profession. The following topics will be introduced: history of the facility management profession, organizational structure, property management, facilities planning, maintenance and operations, managing support services, managing construction projects, strategic planning and budgeting, and conducting a facilities audit.

**FMGT 230 Facility Operations and Maintenance** 3 hrs

This course provides the student with an introduction to the operation and maintenance of facility systems. These systems include: heating, ventilation and air conditioning; elevators; grounds; building exterior and roof; interior walls and floors; plumbing; electrical; telecommunications; fire safety; and security.

*Prereq: FMGT 202, CNST 229.*

**FMGT 416 Managing Utilities, Lighting Systems, and Code Compliance** 3 hrs

This course covers utility rate structures and their effect on building operation strategies, building code requirements, and managing lighting systems for cost efficiency and code compliance.

*Prereq: INDT 201, FMGT 202, FMGT 230.*

**FMGT 417 Computer-Aided Facility Management** 3 hrs

This course teaches the student how to use software that is dedicated to managing facilities.

*Prereq: INDT 201, FMGT 202, FMGT 230, CNST 229, IDE 313.*

**FMGT 418 Building Automation Systems** 3 hrs

This course teaches the student how computerized control systems work in a building. The principal systems covered will be: heating, ventilation and air conditioning control; lighting systems-switching and dimming; elevators-optimum scheduling; security-access control and monitoring; and fire safety-air flow controls, alarms and sprinklers.

*Prereq: INDT 201, FMGT 230.*

**FMGT 424 Industrial Plant Facilities and Planning** 3 hrs

Planning procedures related to small plant and heavy industrial production. Mass production layout methods, machine and production equipment arrangements, types of plant architecture and related facilities, transportation and handling facilities, lighting, sewerage, ventilation, water supply, electrical power and personal facilities are included.

**FMGT 432 Senior Seminar in Facility Management** 3 hrs

This course is a capstone experience that considers and integrates special problems in facility management.

*Prereq: IDE 364, FMGT 416, senior standing, completed or concurrent co-op.*

**Manufacturing Courses****MFG 103 Introduction to Automation** 3 hrs

An introduction to the technology of discrete parts manufacturing. Topics include the contemporary manufacturing environment, new and emerging technologies, human-machine interfaces and human resource issues. Course includes field trips.

**MFG 111 Materials** 3 hrs

This course introduces students to the major categories of engineering materials. It focuses on selection, failure and degradation of metals, polymers, ceramics and composites.

**MFG 112 Plastics** 3 hrs

A study of the plastics industry: material properties and identification, processing techniques, and application of design to product manufacture. Lecture and laboratory course.

**MFG 123 Manufacturing Processes and Methods I 3 hrs**

An introduction and survey of manufacturing processes and materials. Lectures, laboratory, and outside study assignments are an essential part of this course and are related to heat treating, properties of materials, casting, forming and joining. Lecture and laboratory course.

**MFG 124 Manufacturing Processes and Methods II 3 hrs**

An introduction and survey of machines, tools, processes, and materials of industry. Includes conventional and nonconventional machining, theory of metal removal, cutting tool geometry and materials, fixturing, and measuring devices. Lecture and laboratory course.

*Prereq: MFG 123 and MATH 107.*

**MFG 177/178/179 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**MFG 203 Industrial Operation 3 hrs**

A survey course in the practices of manufacturing organizations. Units include careers, regulatory agencies, facilities management, group technology, problem solving and quality decision-making.

*Prereq: MFG 123.*

**MFG 215 Machine Tool Metalworking 3 hrs**

Machine tools and metalworking processes including turning, drilling, shaping, milling and grinding. Principles of tooling, precision measurement and identification of metals. Lecture and laboratory course.

**MFG 240 Science, Technology, and People 3 hrs**

This course will help people better understand the complementary relationship between science and technology in (a) creating technical devices, services and systems; and (b) solving problems.

*Prereq: A general education approved physics or chemistry laboratory course.*

**MFG 251 Material Analysis and Testing 3 hrs**

Study of the structure, characteristics, and working qualities of common industrial materials. Lecture and laboratory course.

**MFG 277/278/279 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**MFG 306 Plastic Processing 3 hrs**

A study of high polymers, basic resin types, and their application to molding and fabrication process. Analysis of chemical and physical properties, mold design, and problems of production. Experimentation and testing required. Lecture and laboratory course.

*Prereq: MFG 112.*

**MFG 316 Design for Manufacturing and Tooling 3 hrs**

A study of manufacturing tooling systems integrated with product and process design principles, utilizing concurrent engineering methods. Students from various programs will work together in integrated teams and utilize complementary tools and skills to solve design problems. Lecture and laboratory course.

*Prereq: MATH 107, MFG 124, MFG 203, and CADM 223.*

**MFG 318 Fluid Power 3 hrs**

Industrial hydraulic and pneumatic power transmission. Emphasis is on components, system control techniques, logic, system analysis, and design. Lecture and laboratory course.

*Prereq: PHY 221.*

**MFG 377/378/379 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**MFG 387 Cooperative Education in Manufacturing Technology 3 hrs**

Industrial technology majors will be placed on a job that relates to their primary area of study, for one semester. During this period regular employee benefits may be received. Credit/no credit. Credit applicable to the major in industrial technology or industrial teacher education only.

*Prereq: Department permission.*

**MFG 409 Plastics Mold Design and Construction 3 hrs**

Principles of mold design for a variety of plastic-molding processes. Mold materials, machining, fabricating, and testing in appropriate processing equipment are required. Lecture and laboratory course.

*Prereq: MFG 306.*

**MFG 410 Plastics Product Design 3 hrs**

The development of products through plastic materials selection and design that includes the esthetics of design and the selection of engineering properties. Lecture and laboratory course.

*Prereq: MFG 306.*

**MFG 411 Plastics Fabricating and Decorating 3 hrs**

Processes involved in forming and fastening of standard profile materials in plastics. Methods of joining, machining, and decorating of plastics materials and products are required. Lecture and laboratory course.

*Prereq: MFG 306.*

**MFG 421 Manufacturing Engineering Analysis 3 hrs**

An advanced course in the analysis of manufacturing operations, utilizing current and new concepts and methods of manufacturing engineering and quality. Students from various programs will work together in integrated teams and utilize complementary tools and skills to identify and solve problems. Lecture and laboratory course.

*Prereq: ENGL 324, MATH 119, MFG 316, and QUAL 420.*

**MFG 477/478/479 Special Topics 1/2/3 hrs**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

*Prereq: Department permission.*

**MFG 487 Cooperative Education in Manufacturing Technology 3 hrs**

The second in a two-course sequence for industrial technology majors. The students will be placed on a job that relates to their primary area of study, for one semester. Regular employee benefits may be received. Graded credit/no credit.

*Prereq: MFG 387 and department permission.*

**MFG 490 Manufacturing Enterprise Capstone 3 hrs**

This capstone course will focus on the design and development of a product and the production system and enterprise for its manufacture. Students from various programs will work together in integrated teams and utilize complementary tools and skills to solve design, planning and production problems. Lecture and laboratory course.

*Prereq: CADM 361, MFG 421, CADM 425.*

**MFG 494/495/496 Industry-Based Special Topics 1/2/3 hrs**

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. Credit/no-credit.

**MFG 497/498/499 Independent Study** 1/2/3 hrs  
Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.  
*Prereq: Department permission.*

### Quality Technology Courses

**QUAL 177/178/179 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**QUAL 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**QUAL 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**QUAL 387 Cooperative Education in Quality Technology** 3 hrs  
Industrial technology majors will be placed on a job that relates to their primary area of study, for one semester. During this period regular employee benefits may be received. Credit/no credit. Credit applicable to the major in industrial technology or industrial teacher education only.  
*Prereq: Department permission.*

**QUAL 420 Industrial Quality Control** 3 hrs  
An introduction to quality control systems and methods utilized in industry. Topics include quality policy and organization, data collection, and reporting, control charts, process and gauge capability, sampling plans, reliability, cost of quality, product liability, and problem analysis.  
*Prereq: MATH 118, MATH 119, and MFG 203.*

**QUAL 477/478/479 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**QUAL 487 Cooperative Education in Quality Technology** 3 hrs  
The second in a two-course sequence for industrial technology majors. The students will be placed on a job that relates to their primary area of study, for one semester. Regular employee benefits may be received. Graded credit/no credit.  
*Prereq: QUAL 387 and department permission.*

**QUAL 494/495/496 Industry-Based Special Topics** 1/2/3 hrs  
Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. Credit/no-credit.

**QUAL 497/498/499 Independent Study** 1/2/3 hrs  
Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.  
*Prereq: Department permission.*

## Interdisciplinary Technology

Web site: [www.emich.edu/public/cot/cot\\_indt.html](http://www.emich.edu/public/cot/cot_indt.html)

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**Department Head**  
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**Professors:** Jamil Baghdachi, Alphonse Bellamy, Carol Haddad, Wayne B. Hanewicz, Frank Jones, Paul D. Kuwik, John Massengill, Ronald Westrum, James Woo

**Associate Professors:** John Boyless, Gerald Lawver, John Preston

**Assistant Professors:** Anthony Adamski, David K. Gore, Steven Lyman, Paul Majeske

**Instructor:** Timothy Doyle

**Degree:**  
Bachelor of Science

The Interdisciplinary Technology Department draws heavily from other disciplines throughout the University. Its undergraduate programs are listed below and are in addition to a master of liberal studies in technology and a master of science in polymers technology, described in the graduate catalog.

### Programs of Study

#### Curricula:

Aviation management technology  
Communication technology  
Industrial distribution  
Polymers and coatings technology

#### Minors:

Aviation flight technology  
Graphic communication  
Technology and society

The aviation management technology, communication technology, industrial distribution, and polymers and coating technology programs have been accredited by the National Association of Industrial Technology.

Advising or additional information is available within the department. Consult with an advising coordinator listed below.

#### Advising Coordinators:

Aviation management technology: Timothy Doyle  
Communication technology: David Gore  
Industrial distribution: John Boyless  
Polymers and coatings technology: James Woo  
Aviation flight technology: Timothy Doyle  
Graphic communication minor: David Gore  
Technology and society minor: Ronald Westrum

## Aviation Management Technology Curriculum

### ISIS major code: ID01

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.

**Academic major in aviation management: ..... 69 hours**

INDT 100 Introduction to Air Transportation .....	3
INDT 110 Aircraft Maintenance I .....	3
INDT 120 Flight Operations I .....	3
INDT 170 Aviation Ground Instruction .....	3



INDT 210 Aircraft Maintenance II .....	3
INDT 220 Flight Operations II .....	3
INDT 303 Aviation Law and Insurance .....	3
INDT 313 Aviation Industry Regulations .....	3
INDT 315 Airport Management .....	3
INDT 320 Aviation Safety, Accident Investigation, and Training .....	3
INDT 387 Cooperative Education in Interdisciplinary Technology .....	3
INDT 422 Senior Seminar in Aviation Management .....	3
MGMT 384 Human Resource Management .....	3
MGMT 386 Organizational Behavior and Theory .....	3
#MATH 118 Mathematical Analysis for Social Sciences I (satisfies general education requirement I.4) .....	3
#MATH 119 Mathematical Analysis for Social Sciences II (satisfies general education requirement I.4) .....	3
DS 265 Business Statistics I .....	3
ACC 240 Principles of Accounting I .....	3
ACC 241 Principles of Accounting II .....	3
FIN 350 Principles of Finance .....	3
MKTG 360 Principles of Marketing .....	3
#IS 215 End-User Computing (satisfies general education requirement I.5) .....	3
LAW 293 Legal Environment of Business .....	3

**#Advising note:** 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.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/indt/ugrad/major/avi.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/indt/ugrad/major/avi.html).

## Communication Technology Curriculum

**ISIS major code: ID07**

Communication technology is a joint program offered by the Interdisciplinary Technology Department and the Department of Communication and Theatre Arts. This curriculum is designed to provide the background necessary for graduates to find employment as managers in communication-based industries. The program emphasis is on having the student acquire those business, manufacturing, media, computer and communication skills necessary for employment in today's communication technology industries and business organizations.

**Academic major in communication technology: .....** 62

### Media production

CTAT 130 Introduction to Telecommunications and Film ... 3

CTAT 141 Introduction to Radio-TV-Film Production ..... 3 |

One of: ..... 3 |

CTAT 331 Fundamentals of Radio Production and Direction (3)

CTAT 332 Fundamentals of Television Production and Direction (3)

### Transmission systems

ELEC 200 Circuit Analysis I ..... 3 |

INDT 305 Communication Transmission Systems ..... 3 |

### Computer technology

COSC 238 Computer Science II ..... 3 |

COSC 239 Assembly and Machine Language Programming ..... 3 |

COSC 338 Computer Organization ..... 3 |

COSC 435 Introduction to Microprocessors ..... 3 |

### Communication theory and practice

#CTAC 227 Interpersonal Communication (satisfies  
general education requirement I.3) ..... 3 |

CTAC 354 Organizational Communication ..... 3 |

### Business and investment skills

MKTG 360 Principles of Marketing ..... 3 |

PSY 205 Quantitative Methods in Psychology ..... 3 |

### Management skills

ACC 240 Principles of Accounting I ..... 3 |

MGMT 202 Business Communication ..... 3 |

### Industrial technology

INDT 121 Graphic Communication ..... 3 |

INDT 231 Introduction to Computer Graphic Systems ..... 3 |

INDT 387 Cooperative Education in Interdisciplinary  
Technology ..... 3 |

INDT 409 Emerging Technologies in Storage and  
Retrieval ..... 3 |

INDT 425 Communication Technology and Social  
Change ..... 3 |

INDT 470 Senior Seminar in Communication  
Technology ..... 2 |

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/indt/ugrad/major/commtech.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/indt/ugrad/major/commtech.html).

## Industrial Distribution Curriculum

**ISIS major code: ID06**

The industrial distribution program 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. No minor is required.

**Major requirements: .....** 45

INDT 240 Profit Strategies in Distribution ..... 3 |

INDT 340 Relationships in Wholesaling ..... 3 |

INDT 387 Cooperative Education in Interdisciplinary  
Technology ..... 3 |

INDT 391 Wholesale Account Development ..... 3 |

INDT 440 Inventory Strategies in Distribution ..... 3 |

INDT 444 Quality Planning in Distribution ..... 3 |

**Concentrations: .....** 27

Students may select concentrations from many subject areas, with adviser approval. Note: No more than 30 credit hours may be taken by non-business majors.

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/indt/ugrad/major/inddist.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/indt/ugrad/major/inddist.html).

## Polymers and Coatings Technology Curriculum

**ISIS major code: ID05**

The polymers and coatings curriculum is designed to provide the background necessary for graduates to find employment in research and development laboratories of companies that manufacture 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.

**Academic major in polymers and coatings**

<b>technology:</b> .....	<b>54-55 hours</b>
<b>Required courses:</b> .....	<b>42 hours</b>
CHEM 281 Quantitative Analysis .....	4
INDT 310 Polymers for Engineers and Technologists .....	3
CHEM 361 Fundamentals of Physical Chemistry .....	3
CHEM 371 Organic Chemistry I .....	3
CHEM 372 Organic Chemistry II .....	3
CHEM 373 Organic Chemistry Laboratory .....	2
INDT 387 Cooperative Education in Interdisciplinary Technology .....	3
INDT 400 Polymers and Coatings Technology I .....	3
INDT 401 Polymers and Coatings Technology I Laboratory .....	3
INDT 402 Polymers and Coatings Technology II .....	3
INDT 403 Polymers and Coatings Technology II Laboratory .....	3
INDT 405 Coating Processes I .....	3
INDT 460 Advanced Coatings Topics .....	3
INDT 479 Special Topics: Statistical Process Control in Coatings .....	3

**Electives:** ..... **12-13 hours**

Choose 12-13 credits from the following:

CHEM 241 Materials Science, CHEM 340 Introduction to Industrial Chemistry, CHEM 415 Environmental Chemistry, CHEM 478 Special Topics, INDT 487 Cooperative Education in Interdisciplinary Technology, INDT 478 Special Topics: Instrumental Analysis of Coatings

For a current curriculum, go to [www.emich.edu/public/catalogs/current/acaf/colleges/cot/indt/ugrad/major/poly.html](http://www.emich.edu/public/catalogs/current/acaf/colleges/cot/indt/ugrad/major/poly.html).

**Aviation Flight Technology Minor**

**ISIS minor code: ID01**

The aviation flight technology minor is designed to develop flight skills as a pilot for various fields of aviation. Students who complete the minor will have earned their private pilot license and their commercial pilot license with an instrument rating, will be certified for flying for personal and business interests and will be prepared for entry into the professional and career pilot field if they so choose.

<b>Required courses:</b> .....	<b>21 hours</b>
INDT 170 Aviation Ground Instruction .....	3
INDT 251 Basic Flight .....	2
INDT 261 Basic Flight II .....	2
INDT 271 Basic Flight III .....	2
INDT 341 Advanced Ground Instruction .....	3
INDT 351 Advanced Flight I .....	2
INDT 361 Advanced Flight II .....	2
INDT 371 Advanced Flight III .....	2
INDT 320 Aviation Safety, Accident Investigation, and Training .....	3
<b>Elective:</b> .....	<b>3 hours</b>
Select one course from the following:	
INDT 110 Aircraft Maintenance I (3)	
INDT 120 Flight Operations I (3)	
INDT 303 Aviation Law and Insurance (3)	
INDT 315 Airport Management (3)	

**Total:** ..... **24 hours**

**Graphic Communication Minor**

**ISIS minor code: ID02**

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.

<b>Required courses:</b> .....	<b>11 hours</b>
INDT 104 Introduction to Communication Technology .....	2
INDT 121 Graphic Communication .....	3
INDT 204 Photographic Communication .....	3
INDT 207 Photographic Reproduction .....	3

**Electives:** ..... **12 hours**

#INDT 201 Microcomputer Applications in Technology (satisfies general education requirement I.5) (3)  
INDT 304 Advanced Photographic Communication (3)  
INDT 318 Graphic Arts Workshop (3)  
INDT 404 Photo Communication Workshop (3)  
CADM 231 Computer Graphics Programming (3)  
#FA 165 Graphic Design for Non-majors (satisfies general education requirement IV.4) (3)  
Electives selected from journalism, marketing or management

**Total:** ..... **23 hours**

**Technology and Society Minor**

**ISIS minor code: ID03**

This minor is interdisciplinary in nature and provides students majoring in science or technology with an understanding of the societal impact of existing and emerging technologies. While housed in the Interdisciplinary Technology Department, the minor utilizes contributions from several departments including biology, chemistry, computer science, economics and history.

**Required courses:** ..... **15 hours**

#COSC 136 Computers for the Non-specialist (satisfies general education requirement I.5) or #COSC 137 Introduction to FORTRAN Programming (satisfies general education requirement I.5) ..... 3  
#INDT 150 Understanding Technology (satisfies general education requirement II.3) ..... 3  
HIST 290 Introduction to the History of Technology ..... 3  
INDT 308 Seminar in Technological Impacts ..... 3  
INDT 495 Technology, Values, and the Future ..... 3

**Restricted Electives:** ..... **9 hours**

Choose three courses from the following, with at least one course from each subgroup, A and B:

*Subgroup A:*

BIOL 224 Principles of Conservation  
CHEM 415 Environmental Chemistry  
ECON 337 Energy Economics and Policies  
GPLN 215 Introduction to Urban and Regional Planning,  
GEOG 310 Energy Awareness, GEOG 440 World Food Systems  
SOCL 334 Population

*Subgroup B:*

CTAT 446 Contemporary Problems in Telecommunications  
ECON 386 Technology and Economic Growth  
GEOG 100 Future Worlds, GEOG 235 Economic Geography, GESG 495/GPLN 495 Environmental Assessment and Planning  
INDT 420 Women and Technology  
#INDT 201 Microcomputer Applications in Technology (satisfies general education requirement I.5)

PHIL 380 Philosophy of Science  
 PLSC 381 Public Policy Analysis, PLSC 382 Politics and the  
 21st Century  
 PSY 350 Environmental Psychology, PSY 351 Industrial  
 Psychology  
 SOCL 336/ANTH 336 Social and Cultural Change, ANTH  
 379 Special Topics: Contemporary Issues in Developing  
 and Modern Technological Societies, SOCL 307  
 Industrial Sociology

**Total:** ..... 24-26 hours

### Interdisciplinary Technology Courses

**INDT 100 Introduction to Air Transportation** 3 hrs  
 This course is designed to provide a basic understanding of the operational categories within civil aviation and the functions of state and federal government in its control and regulation. The history, scope, and diverse nature of aviation will be discussed, together with some of the many occupational opportunities available.

**INDT 104 Introduction to Communication Technology** 2 hrs  
 An introduction to the field of communication technology. Communication theory and the graphic and telecommunication industries. Lecture: two hours per week.

**INDT 110 Aircraft Maintenance I** 3 hrs  
 The functions and roles of maintenance personnel in an aviation maintenance organization structure. Lecture: three hours per week.

**INDT 120 Flight Operations I** 3 hrs  
 The role of aviation in general aviation and the interface with regulatory agencies and parent organizations. Lecture: three hours per week.

**INDT 121 Graphic Communication** 3 hrs  
 Preparation and design of graphic media. The theory and application of effective communications. Information collection, analysis and dissemination; survey of the graphic communication industry. Lecture: two hours per week. Laboratory: two hours per week.

**INDT 150 Understanding Technology** 3 hrs  
 A course to develop basic technological literacy by providing an introduction to technological concepts and problems and to the technology literature. Several concrete technological systems and their dynamics, particularly as they relate to society.

**INDT 170 Aviation Ground Instruction** 3 hrs  
 Basic ground instruction in aerodynamics, navigation, federal aviation regulations, meteorology, and flight procedures directed toward preparation for the private-pilot written examination.

**INDT 177/178/179 Special Topics** 1/2/3 hrs  
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*

**INDT 201 Microcomputer Applications in Technology** 3 hrs  
 An introduction to microcomputers and their applications in technology. The course contains an introduction to word processing, spreadsheets, database management and their applications.  
*Prereq: Basic keyboard skill is recommended; BEDU 119 is suggested.*

**INDT 204 Photographic Communication** 3 hrs  
 Basic functions, principles and applications of photography in graphic communication. Lecture: two hours per week. Laboratory: two hours per week. Students must furnish their own camera and photo materials.

**INDT 205 Photo-Technology** 2 hrs  
 The applications of light sensitive materials used in industry to include photo-drafting and photofabrication. Lecture: one hour per week. Laboratory: two hours per week.  
*Prereq: INDT 121 and a chemistry course.*

**INDT 207 Photographic Reproduction** 3 hrs  
 Study and laboratory work in photomechanics, stripping and platemaking as applied to offset presswork. Includes the preparation of layout materials for printing. Lecture: one hour per week. Laboratory: two hours per week.  
*Prereq: INDT 104 or INDT 121.*

**INDT 210 Aircraft Maintenance II** 3 hrs  
 The functions and organization of an aircraft maintenance facility and role of the supervisors within that structure. Lecture: three hours per week.  
*Prereq: INDT 110.*

**INDT 214 Rubber Technology I** 2 hrs  
 Lectures and laboratory experiments on the fundamentals of rubber chemistry, compounds and processing technology, and rubber testing methods.  
*Prereq: High school or college course in chemistry, or approval of instructor.*

**INDT 220 Flight Operations II** 3 hrs  
 In-depth study of the functions and organization of operations and the relationship with the other departments within an aviation organization.  
*Prereq: INDT 120.*

**INDT 231 Introduction to Computer Graphic Systems** 3 hrs  
 Students are provided with opportunities to work on a variety of CAD and paint systems. Students will learn terminology for graphics hardware and software, write short graphics programs, and explore applications of graphics to their own field of study. Course does not count for CAD majors. Lecture and laboratory course.

**INDT 240 Profit Strategies in Distribution** 3 hrs  
 Explanation of the terms related to profits and mark up, calculation of profit, discounts, mark ups, identification and interpretation of profitability ratios, and the distribution of financial resources.

**INDT 250 Wire Technology I** 3 hrs  
 The fundamentals of wire manufacturing, steel production, wire joining, cleaning, descaling, coating, drawing, cooling and lubrication. Lecture and demonstration. No previous wire manufacturing knowledge required.

**INDT 251 Basic Flight I** 2 hrs  
 The student will receive dual instruction in preflight procedures, ground reference maneuvers, takeoff and landings, power-off and power-on stalls, local flight operations, and precision flight maneuvers. Remaining hours will be solo flight.  
*Prereq: INDT Student Pilot Certificate and Class II or III Medical.*

**INDT 255 Emergency Preparedness Planning** 3 hrs  
 An introduction to emergency planning, including assessment of community hazards and resources, for students responsible for civil defense or emergency-preparedness tasks. Provides a planning and analytical framework, hazard/vulnerability analysis, that can be applied to the local comprehensive emergency-management context.

**INDT 261 Basic Flight II** 2 hrs  
 The student will receive dual instruction and solo practice in extended cross-country flight operations, flight proficiency maneuvers, and all phases of flight specified by the Federal Aviation Administration. The student will be prepared to take the oral and flight examination for the Private Pilot Certificate.  
*Prereq: INDT 251.*

- INDT 271 Basic Flight III** 2 hrs  
The student will receive an introduction to commercial maneuvers and instrument flying techniques, including dual instruction and solo practice in areas of ground reference maneuvers, flight precision maneuvers, radio navigation, and special cross-country flight operations.  
*Prereq: INDT 261.*
- INDT 277/278/279 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- INDT 303 Aviation Law and Insurance** 3 hrs  
Overview of legal considerations in general aviation, government agencies exercising control, regulations, laws, advisory information, and insurance requirements and considerations.
- INDT 304 Advanced Photographic Communication** 3 hrs  
Photographic theory and techniques, with particular emphasis upon commercial and industrial applications. Lecture: two hours per week. Laboratory: two hours per week. The student must furnish a camera and photo materials.  
*Prereq: INDT 204.*
- INDT 305 Communication Transmission Systems** 3 hrs  
Consideration of source, encoder (transmitter), channel and receiver functions. Principles of line communication, a study of various systems, and future developments in communication transmission systems.
- INDT 308 Seminar in Technological Impacts** 3 hrs  
An undergraduate-level introduction to technology assessment. Development of skills related to forecasting technological inventions and assessing their effect if adopted by society.
- INDT 310 Polymers for Engineers and Technologists** 3 hrs  
Introduction to polymer science, polymerization, polymer modifications, size and weight of polymer molecules, plastics, adhesives, silicones, foams, surface coatings, fibers, elastomers, transitions, and relaxations in polymers, rheology, polymer fabrication techniques.
- INDT 313 Aviation Industry Regulations** 3 hrs  
The major significance of aviation regulations and policies including the development and enforcement of federal aviation regulations will be presented. The major elements of managing an aviation operation within the guidelines of international and federal aviation industry regulations together with the influence of local and state requirements will be presented.
- INDT 315 Airport Management** 3 hrs  
The major elements in the process of planning and managing airports are presented including federal airport policy, the airport master-planning process, capacity analysis, site selection and funding. The historical development of and current practices in airport administration, operations management, maintenance and safety will be presented.
- INDT 318 Graphic Arts Workshop** 3 hrs  
Selected topics in the field of graphic arts technology, such as composition, press work, screen process and advanced photomechanics. May be repeated for additional credit.  
*Prereq: INDT 207 or department permission.*
- INDT 320 Aviation Safety, Accident Investigation, and Training** 3 hrs  
In-depth study of aviation safety (flight and ground); accident prevention, accident investigation and personnel training.  
*Prereq: INDT 170.*
- INDT 340 Relationships in Wholesaling** 3 hrs  
Analysis of major industries and professional trade associations, and their interaction within the marketing channel. Emphasis will be placed on the relationship between trade associations and industry, elements of the marketing channel (manufacturer, distributor, customer, and the employer and employee).  
*Prereq: INDT 240.\**
- INDT 341 Advanced Ground Instruction** 3 hrs  
Advanced ground instruction in aerodynamics, navigation regulations, and procedures directed toward preparation for the instrument rating and commercial pilot written examinations.  
*Prereq: INDT 170.*
- INDT 350 Wire Technology II** 3 hrs  
An intermediate course designed to study contemporary concepts and practices of wire manufacturing.  
*Prereq: INDT 250 or approval of instructor.*
- INDT 351 Advanced Flight I** 2 hrs  
The student will receive dual instruction and solo practice in advanced cross-country navigation, commercial maneuvers, and an introduction to instrument flying techniques.  
*Prereq: INDT 271.*
- INDT 361 Advanced Flight II** 2 hrs  
The student will receive dual instruction and solo practice in commercial flight maneuvers and instrument flight procedures, including instrument approaches, holding patterns and partial panel procedures.  
*Prereq: INDT 351.*
- INDT 371 Advanced Flight III** 2 hrs  
The student will complete the dual instruction and solo practice in all phases of flight training specified by the Federal Aviation Administration for the insurance of the Commercial Pilot Certificate and the instrument rating. The student will complete the oral examinations and flight tests required for this certificate and rating.  
*Prereq: INDT 361.*
- INDT 377/378/379 Special Topics** 1/2/3 hrs  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.  
*Prereq: Department permission.*
- INDT 380 Planning and Decision-Making for Public Safety** 3 hrs  
The study of planning and decision-making techniques as applied to public safety operations; includes attention to concepts, e.g., the process of change in organizations, as well as particular skills and techniques; e.g., PERT, decision trees.
- INDT 381 Public Relations and Public Safety** 3 hrs  
An examination of the relationship between public safety agencies and the larger community, with particular emphasis on administrative and policy dimensions; the role of public safety agencies, the community's involvement in establishing that role, police-community relations programs, relationships with the media, and professionalization and accreditation movements in public safety agencies are addressed.
- INDT 387 Cooperative Education in Interdisciplinary Technology** 3 hrs  
A minimum of three to four months of full-time employment in a business or industry that provides experiences directly related to the major area of study. Work sites must be approved in advance by the Interdisciplinary Technology Department. Regular employee benefits may be received during the employment period.  
*Prereq: Department permission.*



- INDT 391 Wholesale Account Development** 3 hrs  
An in-depth study into the processes and techniques involved in acquiring and developing industrial accounts from the distributor's and the manufacturer's point of view. The course will develop practical and effective skills in the area of advanced industrial wholesale account development. Guest lectures by manufacturers' representatives and from purchasing agents will augment the course.  
*Prereq: INDT 240 and INDT 340.*
- INDT 400 Polymers and Coatings Technology I** 3 hrs  
Introduction to synthesis, film formation, structure, and properties of polymers commonly used in coatings. Polymer systems to be covered include acrylic, vinyls, polyesters, alkyds, oils, epoxies, epoxyesters, aminoplasts, urethanes, phenolics, hydrocarbons, cellulotics.  
*Prereq: CHEM 270, 271.*
- INDT 401 Polymers and Coatings Technology I Laboratory** 3 hrs  
Synthesis, characterization and identification of polymers used in coatings. The synthesis of solution acrylic, vinyl, acrylic emulsion, polyester, alkyd, epoxyester, melamine formaldehyde and urethane polymers with extensive use of physical techniques such as GIRT, GP and calorimetry.  
*Coreq: INDT 400.*
- INDT 402 Polymers and Coatings Technology II** 3 hrs  
Formulation in oil-based and waterborne coatings covering the use of solvents, pigments and additives. Principles of adhesion and corrosion, and the use of conversion coatings. Safety, health, government regulations and paint production techniques.  
*Prereq: INDT 400.*
- INDT 403 Polymers and Coatings Technology II Laboratory** 3 hrs  
Practical formulation in oil-based and waterborne systems including the preparation and evaluation of various topcoats and primers currently used in the coatings industry (e.g., oil-based air-dry enamel, thermosetting coating, epoxyester primer, two-package urethane, acrylic latex and ED primer).  
*Coreq: INDT 402.*
- INDT 404 Photo Communication Workshop** 3 hrs  
Selected topics in photo communications, such as commercial and industrial photography, photo journalism, sensitometry and photography, and photo processing. The class schedule describes the specific topic being offered during a given semester. May be repeated for additional credit.  
*Prereq: INDT 304.*
- INDT 405 Coating Processes I** 3 hrs  
Development of expertise in industrial coating processes. Substrate preparation, principles of adhesion, corrosion control, industrial coating materials, industrial coating systems, and regulatory compliance in the coatings industry.  
*Prereq: INDT 310 or INDT 400, or department permission.*
- INDT 409 Emerging Technologies in Storage and Retrieval** 3 hrs  
Conventional as well as emerging technologies of information storage and retrieval. Lecture and laboratory.
- INDT 420 Women and Technology** 3 hrs  
This course surveys gender issues surrounding technology development, transfer and use. We will examine these issues from historical, contemporary and global perspectives.
- INDT 421 Photographic Typesetting** 3 hrs  
Study of the fundamentals of phototypesetting technology. Document preparation, keyboard entry, file manipulation, and typeset copy output will be covered as well as word processor interfacing. Two hour lecture, two hour lab.
- INDT 422 Senior Seminar in Aviation Management** 3 hrs  
Current issues in aviation management will be explored using group and individual projects and analysis of case studies. Research, analysis, and application of skills and knowledge acquired in other course work will be stressed.  
*Prereq: Department permission.*
- INDT 425 Communication Technology and Social Change** 3 hrs  
The social implications of recent and future developments in communication technology. The effects upon education, research and scientific knowledge, business and entertainment.
- INDT 433 Arson Investigation** 3 hrs  
An examination of the nature and causes of suspicious and incendiary fires, their detection and investigation; involves classroom lecture and field training. Students will conduct fire scene investigations, collect evidence, document findings, and participate in a mock trial. Assumes no previous experience in fire investigation. Students must provide their own 35mm camera, safety shoes, gloves and hard hat.  
*Prereq: CHEM 117-CHEM 118 or PHY 221.*
- INDT 434 Hazardous Materials** 3 hrs  
An examination of hazardous material incidents from the perspective of the public safety officer/manager charged with protecting people and property; identifying hazardous materials, assessing hazardous material accidents, planning and tactics for addressing hazardous material problems.  
*Prereq: CHEM 117-CHEM 118 or PHY 221.*
- INDT 435 Incident Command** 3 hrs  
The study of complex fire situations, including analysis of prefire planning, establishing and managing the command post, and effective management of complex fireground operations. Emphasizes the study of multiple company response and the efficient utilization of available and prospective resources in handling major fires.  
*Prereq: PLSC 450 or department permission.*
- INDT 436 Electronic Publishing Technology** 3 hrs  
The application of electronic design and layout principles to publication and presentation documents. Develop skills in graphics, type, file creation and manipulation, word processing interface, and output of paginated, camera-ready copy through several software packages.
- INDT 440 Inventory Strategies in Distribution** 3 hrs  
An examination of the wholesale inventory management problem. The interrelationship between physical inventory, profitability and customer service will be explored.  
*Prereq: INDT 391.*
- INDT 444 Quality Planning in Distribution** 3 hrs  
Wholesale distributors are moving toward a total commitment to the philosophy of continuous improvement with zero errors as their ultimate goal. The course explores the quality assurance movement as it applies to wholesalers.
- INDT 450 Advanced Coatings Topics III** 3 hrs  
Advanced wire technology; in-depth study of wire in manufactured products.  
*Prereq: INDT 350 or permission of instructor.*
- INDT 452 Current Trends in Emergency Management** 3 hrs  
*Prereq: INDT 255.*
- INDT 460 Advanced Coatings Topics** 3 hrs  
Development of in-depth formulating skills; new technology areas in coatings and polymers.  
*Prereq: INDT 402, INDT 403, or department permission.*

**INDT 470 Senior Seminar in Communication Technology** 2 hrs  
Guest speakers and/or site visitations will be used to illustrate the application of new communication technologies common to business, industrial or governmental environments.

**INDT 475 Managing Correctional Agencies and Facilities** 3 hrs  
A study of administrative practices in correctional agencies and facilities, including attention to organization structure, management problems, financing, rights of offenders, intervention strategies, and community-based programs.  
*Prereq: PLSC 450 or department permission.*

**INDT 477/478/479 Special Topics** 1/2/3 hrs  
An examination of topics in interdisciplinary technology not covered in other departmental offerings. Students may elect these courses more than once, provided different topics are studied.  
*Prereq: Department permission.*

**INDT 487 Cooperative Education in Interdisciplinary Technology** 3 hrs  
A minimum of three to four months of full-time employment in a business or industry that provides experiences directly related to the major area of study. Work sites must be approved in advance by the Interdisciplinary Technology Department. Regular employee benefits may be received during the employment period.  
*Prereq: Department permission.*

**INDT 495 Technology, Values, and the Future** 3 hrs  
The development of modern technological society: major breakthroughs in the physical and life sciences, the influence of some of these breakthroughs on technological development, the consequent shaping of new world views and, hence, values in contemporary and future societies. Interrelationships between technology and political, socioeconomic and environmental systems; the relationship between technology and values.

**INDT 497/498/499 Independent Study** 1/2/3 hrs  
Individual work in some area of interdisciplinary technology under the direction of a faculty member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be selected more than once, after resubmission and approval.  
*Prereq: Department permission.*

## Military Science

Web site: [www.emich.edu/public/cot/ms/ms\\_home.html](http://www.emich.edu/public/cot/ms/ms_home.html)

**Lt. Col. Brian J. Hoxie**  
**Department Head**  
**18 Roosevelt Building**  
**734.487.1020**  
**E-mail: milsci@emich.edu**

The military science program provides students with training that permits entry into the active Army, Army Reserve, or National Guard as commissioned officers. Emphasis is given to the development of the student as a leader and a manager, capable of organizing and motivating others.

The program is of either four or two years' duration and 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 courses unless granted advanced placement for the 100- and 200-level classes.

ROTC scholarships for three or two years' duration are available and are 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 \$150 per month subsistence allowance is paid for each school month during the period of the scholarship. Application can be made by contacting the Military Science department in January of the school year preceding the effective semester of the award.

The two-year program is designed for students transferring from community colleges and other students who were not enrolled in military science courses during their first two years of college. Applicants complete a six-week training program during the summer months, which takes the place of the on-campus MILT 100 and 200 courses. While in summer training, the student remains a civilian but earns Army pay and travel allowances. Upon completing the program, the student may be granted eight credit hours credit upon the recommendation of the Military Science Department and may apply for entry into the MILT 300-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 approximately \$300 per month. SMP is an excellent opportunity to learn applied management skills.

Veterans can qualify for advanced placement credit directly into MILT 300. Applicants should contact the department for acceptance into MILT 300 or 301 at the earliest possible time before the next full semester.

All uniforms and texts are provided to the student without cost. Additionally, MILT 300 and 400 participants receive \$150 per month during the school year and are paid at one-half the rate of a second lieutenant while attending a summer field course. Armed forces veterans may receive the \$150 per month pay in addition to any other veterans benefits they are receiving.

### Programs of Study

#### Minor:

Military Science

Advising Coordinator: Capt. Larry Chirio

**Special Requirements**

Admission into the advanced program (MILT 300, MILT 301, MILT 400 and MILT 401) requires that all students successfully complete the Officer Selection Battery Test (OSB), undergo a complete physical examination at the Snow Health Center, and have completed the basic course or its equivalent.

The criteria for continuance is that all students maintain a 2.0 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.

**Credit Toward Graduation**

The 12 credit hours 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 hours credit for graduation. When finalizing their undergraduate program, students should consult an academic adviser within the department of their declared major.

**Military Science Minor****Required courses**

MILT 100 Fundamentals of Leadership and Management I .....	2
MILT 101 Fundamentals of Leadership and Management II .....	2
MILT 200 Applied Leadership and Management I .....	2
MILT 201 Applied Leadership and Management II .....	2
MILT 300 Advanced Military Leadership and Management I .....	3
MILT 301 Fundamentals and Dynamics of the Military Team I .....	3
MILT 400 Fundamentals and Dynamics of the Military Team II .....	3
MILT 401 Advanced Military Leadership and Management II .....	3

Students must take all of the above courses unless granted advanced placement. Students electing a minor in military science may not use this minor to fulfill the state secondary provisional certificate requirement of a teaching minor.

**Total:** ..... 20 hours

**Military Science Courses****MILT 100 Fundamentals of Leadership and Management I 2 hrs**

An introduction to the U.S. defense establishment with emphasis on the role and structure of the U.S. Army. Students also participate in adventure mini-courses (rappelling, rifle marksmanship, etc.).

**MILT 101 Fundamentals of Leadership and Management II 2 hrs**

An introduction to the role of the army officer, ethics, professionalism, leadership traits, and principles. As a part of the course, students receive a mini-course in first aid and land navigation.

**MILT 200 Applied Leadership and Management I 2 hrs**

An introduction to basic military leadership skills to include: map reading, communications, military briefings, physical training and individual leadership skills.

**MILT 201 Applied Leadership and Management II 2 hrs**

A continuation of MILT 200 in the study of military leadership and management skills. Included in this course are: individual leadership skills, applied management skills, terrain analysis, and platoon offense/defense operations.

**MILT 300 Advanced Military Leadership and Management I 3 hrs**

Techniques of leadership and management with emphasis on the role of the small unit leader as a teacher. Theory and application of basic military skills: topography, close order drill and weaponry.

**MILT 301 Fundamentals and Dynamics of the Military Team I 3 hrs**

An examination of the leader's role as an organizer, decision-maker, and leader of a military team. Small unit leadership studied from the perspective of mission, capabilities and management. Prepares students for the advanced summer camp experience.

**MILT 302 Leadership Laboratory**

Conducted for both semesters of the 300-level courses. Field application of classroom theories and studies. Physical abilities strengthened and tested. All areas of classroom instruction, drill, military skills, leadership and physical aptitude.

**MILT 400 Fundamentals and Dynamics of the Military Team II 3 hrs**

The organization and functioning of command and staff in army organizations. The essentials of military correspondence, communications and training.

**MILT 401 Advanced Military Leadership and Management II 3 hrs**

The essentials of the army personnel and logistics management systems. An in-depth examination of ethics and professionalism as they apply to the military officer. Case study of small-unit combat leadership.

**MILT 402 Leadership Laboratory**

A two-semester practicum conducted concurrently with 400-level courses. Exercise of organizational and leadership theory to which the student has been exposed. The cadet battalion command and staff structure is used as a vehicle to provide practical experience in the processes of leadership.

**MILT 497/498/499 Independent Study 1/2/3 hrs**

Intensive study or project approved by the department head. Study or project is directly related to a military subject.

*Prereq: Department permission.*

## **Administrative Officers**





# Administrative Officers

## The Cabinet

President: William E. Shelton  
 Provost and Vice President for Academic Affairs: Ronald W. Collins  
 Vice President for Business and Finance and Treasurer to the Board of Regents: Patrick J. Doyle  
 Vice President for Enrollment Services: Courtney O. McAnuff  
 Vice President for University Marketing and Student Affairs: Laurence N. Smith  
 Vice President for University Relations: Juanita M. Reid  
 General Counsel/University Attorney: Kenneth A. McKanders  
 Executive Director, University Planning, Budgeting and Analysis: George A. Johnston

## Office of the President

### Office of the President

President: William E. Shelton  
 Executive Assistant to the President: David R. Klubeck

### Intercollegiate Athletics

Director (Interim): Carole Huston

### University Planning, Budgeting and Analysis

Executive Director: George A. Johnston  
 Director of Budget Management: Alvin S. Levett  
 Director of Institutional Analysis and Reporting: Paul N. Moniodis  
 Director, Management Information Systems: John A. Senko

## Division of Academic Affairs

### Academic Administration

Provost and Vice President: Ronald W. Collins  
 Associate Vice President for Academic Affairs (Interim): Kenneth W. Rusiniak  
 Associate Vice President for Extended Programs: Donald M. Loppnow  
 Director, Academic Budget and Operations: Susan E. Moeller  
**Assessment/NCA Self-Study/Reaccreditation**  
 Director: Donald H. Bennion

### College of Arts and Sciences

Dean: Barry A. Fish  
 Associate Dean (Interim): Ellene Contis  
 Associate Dean: James C. Waltz  
 Assistant Dean: Bernard O'Connor

#### Departments

African American Studies, Head: Robert L. Perry  
 Art, Head: Thomas K. Venner  
 Biology, Head (Interim): Robert K. Neely  
 Chemistry, Head: Wade J. Tornquist  
 Communication and Theatre Arts, Head: Dennis M. Beagen  
 Computer Science, Head: George E. Haynam  
 Economics, Head: Raouf S. Hanna  
 English Language and Literature, Head: Russell Larson  
 Foreign Languages and Bilingual Studies, Head: John R. Hubbard  
 Geography and Geology, Head: Michael Kasenow  
 History and Philosophy, Head: Gersham A. Nelson  
 Mathematics, Head: Don R. Lick  
 Music, Head: Gordon D. McQuere  
 Physics and Astronomy, Head: P. Daniel Trochet  
 Political Science, Head: Edward I. Sidlow  
 Psychology, Head: Kenneth W. Rusiniak  
 Sociology, Anthropology and Criminology, Head: Joseph H. Rankin

### College of Business

Dean (Interim): Thomas D. Harden  
 Associate Dean (Interim): P. Nick Blanchard  
 Assistant Dean: Amelia S. Chan

#### Departments

Accounting, Head: Thomas S. Cianciolo  
 Finance and Computer Information Systems, Head: Alahassane Diallo  
 Management, Head (Interim): Fraya C. Wagner-Marsh  
 Marketing, Head: Robert H. Dodge

### College of Education

Dean: Jerry H. Robbins  
 Associate Dean: Michael Bretting  
 Associate Dean: Carolyn M. Finch

#### Departments

Health, Physical Education, Recreation and Dance, Head (Interim): Jeff E. Goodwin  
 Leadership and Counseling, Head: James Berry  
 Special Education, Head: Kathleen S. Quinn  
 Teacher Education, Head: Alane J. Starko

### College of Health and Human Services

Dean: Elizabeth C. King  
 Associate Dean: Polly Buchanan

#### Departments

Associated Health Professions, Head: Ruth A. Hansen  
 Human, Environmental and Consumer Resources, Head: George U. Liepa  
 Nursing, Head: Regina Williams  
 Social Work, Head: Wanda D. Bracy

### College of Technology

Dean: Thomas K. Harden  
 Associate Dean (Interim): Max E. Kanagy

#### Departments

Business and Technology Education, Head: David L. Boggs  
 Industrial Technology, Head: Daniel J. Fields  
 Interdisciplinary Technology, Head: Paul D. Kuwik  
 Military Science, Head: Lt. Col. Brian J. Hoxie

#### Coatings Research Institute

Director: John L. Massingill

### Extended Programs

Associate Vice President for Extended Programs: Donald M. Loppnow  
 Dean, Continuing Education: Carolyn C. Dahl  
 Director, Centers for Corporate Training: Walter DiMantova  
 Director, Community College Relations: Sherry Sayles  
 Director, Institute for Diversity and Business Services: Raouf S. Hanna  
 Director, Institute for the Study of Children, Families and Communities (Interim): David L. Clifford  
 Director, National Institute for Consumer Education: Gwen Reichbach  
 Director, World College: Raymond E. Schaub

### Faculty Center for Instructional Excellence

Interim Director: Pat Pokay

### Graduate Studies and Research, Graduate School

Dean: Robert O. Holkeboer  
 Associate Dean: Patrick Melia

### Learning Resources and Technologies

Dean: Morell D. Boone  
 Associate Dean, Learning Technologies: Jennie M. McCafferty  
 Head, Learning Resources: Sandra G. Yee  
 Director, Center for Instructional Computing: Robert J. Ferrett  
 Director, Center for Research Support: Stuart A. Karabenick

### Office of Research Development

Director (Interim): Brian D. Anderson

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**Upward Bound**

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**Women's Studies**

Director: Rhonda S. Kinney

**Division of Business and Finance**

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Controller: John Beaghan

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**Physical Plant**

Director: William Smart

**Public Safety**

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**Purchasing and Telecommunications**

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**Risk Management/Worker's Compensation**

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**Division of Enrollment Services**

Vice President: Courtney O. McAnuff

**Academic Advising Center**

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**Admissions**

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**Financial Aid**

Director: Bernice A. Lindke

**Holman Learning Center**

Director: Lynette Findley

**Records and Registration**

Director: Joy Garrett

**Division of University Marketing and Student Affairs**

Vice President: Laurence N. Smith

Assistant Vice President: James F. Vick

**Auxiliary Enterprises**

Director of Financial Operations: Sandra Williams

**Career Services Center**

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**Dean of Students**

Dean: Gregory A. Peoples

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**Housing**

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**McKenny Union and Campus Life**

Director: Glenna Frank Miller

**Public Information**

Director: Pamela Young

**Recreation/Intramurals**

Director: Robert W. England

**Student Judicial Services**

Director: Karen Simpkins

**Student Media**

Director: Catherine Hill

**Technology Services**

Director: Randy Hockey

**University Health Services**

Director: Ellen Gold

**University Marketing**

Executive Director: Rita E. Abent

**University Publications**

Director: Paul Heaton

**Division of University Relations**

Vice President: Juanita M. Reid

Assistant Vice President: Kathleen D. Tinney

**Alumni Relations**

Director: Vicki Reaume Mushisky

**Convocation Center**

Director: Cheryl Swanson

**Human Resources**

Executive Director: Theodore Heidloff

Director, Academic Human Resources: Cathy J. Rush

Director, Benefits Programs: Jeanette Hassan

Director, Compensation/Employment: Craig F. Reidsma

Director, Employee Relations: Kevin Smart

Director, Human Resource Development: William Hathaway

**Institute for Community and Regional Development**

Director: Charles M. Monsma

**Legal Affairs**

University Attorney: Kenneth A. McKanders

**University Computing**

Executive Director: Margaret Cline

**WEMU Radio**

Director: Arthur J. Timko

# **Indices**

**Faculty and Staff**

**Programs of Study**

**Catalog Index**



## Faculty and Staff

### A

- Abbott, Richard Henry** (1966); Professor; History and Philosophy; Ph.D.; University of Wisconsin
- Abent, Rita E.** (1979); Executive Director; University Marketing; M.S.; Syracuse University
- Achilles, Charles M.** (1994); Professor; Leadership and Counseling; Ed.D.; University of Rochester
- Adams, Anthony Troy** (1985); Associate Professor; Sociology, Anthropology and Criminology; Ph.D.; University of Michigan
- Adams, Leah** (1969); Professor; Teacher Education; Ph.D.; University of Michigan
- Adamski, Anthony** (1997); Assistant Professor; Interdisciplinary Technology; Ph.D.; Wayne State University
- Aebersold, Jo Ann** (1984); Professor; Foreign Languages and Bilingual Studies; Ph.D.; University of Michigan
- Aghssa, Pirooz** (1995); Assistant Professor; Communication and Theatre Arts; Ph.D.; Texas Tech University
- Ahlbrandt, Gisela E.** (1984); Professor; Mathematics; Ph.D.; University of Illinois-Chicago
- Ahmad, S. Imtiaz** (1981); Professor; Finance and Computer Information Systems; Ph.D.; University of Ottawa
- Al-Ghadeer, Moneera** (1999); Assistant Professor; English Language and Literature; Ph.D.; University of California at Berkeley
- Al-Khafaji, Mahmoud** (1983); Assistant Professor; Mathematics; Ph.D.; New Mexico State University
- Aldridge, Henry B.** (1972); Professor; Communication and Theatre Arts; Ph.D.; University of Michigan
- Alford-Trewn, Peggy** (1998); Assistant Professor; Nursing Education; Ph.D.; Wayne State University
- Allen, Irene** (1968); Professor; Teacher Education; Ed.D.; Ball State University
- Allen, Nancy** (1991); Associate Professor; English Language and Literature; Ph.D.; Purdue University
- Ametrano, Irene M.** (1981); Professor; Leadership and Counseling; Ed.D.; Rutgers University
- Amos, Charles N.** (1975); Professor; Music; Ph.D.; University of Iowa
- Anderson, Brian D.**; Director (Interim); Office of Research Development; M.B.A.; Eastern Michigan University
- Anderson, Marvin** (1963); Professor; Art; M.F.A.; Cranbrook Academy of Art
- Anderson, Roberta** (1977); Assistant Professor; Special Education; M.A.; Eastern Michigan University
- Andrew, Ann** (1969); Assistant Professor; Learning Resources and Technologies; A.M.L.S.; University of Michigan
- Angell, Michael G.** (1998); Assistant Professor; Biology; Ph.D.; Pennsylvania State University
- Angermeier, Lisa** (1998); Assistant Professor; Health, Physical Education, Recreation and Dance; M.S.; Indiana University
- Angle, Jim Bell** (1964); Professor; English Language and Literature; M.A.; Kansas State University
- Aristar-Dry, Helen** (1991); Professor; English Language and Literature; Ph.D.; University of Texas at Austin
- Armstrong, Jeff** (1999); Assistant Professor; Health, Physical Education, Recreation and Dance; Ph.D.; University of Toledo
- Arrington, Phillip** (1984); Professor; English Language and Literature; Ph.D.; University of Louisville
- Atchison, Ben** (1986); Associate Professor; Associated Health Professions; Ph.D.; Wayne State University
- Avedon, Barry** (1966); Professor; Art; M.F.A.; Rochester Institute of Technology

### B

- Bach, Catherine E.** (1991); Professor; Biology; Ph.D.; University of Michigan
- Badics, Joseph** (1993); Instructor; Learning Resources and Technologies; M.L.S.; University of Michigan
- Baghdachi, Jamil** (1997); Professor; Interdisciplinary Technology; Ph.D.; University of Mississippi
- Bahorski, Zenia** (1990); Instructor; Computer Science; M.S.; Eastern Michigan University
- Baiyee, Martha** (1998); Assistant Professor; Teacher Education; Ph.D.; Virginia Tech
- Banks, Gary** (1969); Professor; Health, Physical Education, Recreation and Dance; J.D.; Detroit College of Law
- Barach, George J.** (1969); Associate Professor; Special Education; Ed.D.; Wayne State University
- Barak, Gregg** (1991); Professor; Sociology, Anthropology and Criminology; Ph.D.; University of California - Berkeley
- Barber, Betty** (1969); Assistant Professor; Teacher Education; M.S.; Eastern Michigan University
- Barott, James E.** (1998); Associate Professor; Leadership and Counseling; Ph.D.; University of California-Santa Barbara
- Barton, Daryl L.** (1975); Assistant Professor; Marketing; J.D.; University of Michigan
- Beagen, Dennis M.** (1967); Professor and Department Head; Communication and Theatre Arts; M.A.; University of Michigan
- Beaghan, John** (1991); Controller; Controller's Office; M.B.A.; Eastern Michigan University
- Beal, Sarell W.** (1970); Associate Professor; Learning Resources and Technologies; M.A.L.S.; Rosary College
- Beard, Betty J.** (1976); Professor; Nursing Education; Ph.D.; University of Michigan
- Beauvais, Kathleen** (1991); Associate Professor; Teacher Education; Ph.D.; University of Michigan
- Bedford, Eddie** (1988); Assistant Professor; Health, Physical Education, Recreation and Dance; M.S.; University of Wisconsin-LaCrosse
- Bednar, Anne** (1991); Professor; Teacher Education; Ed.D.; Indiana University
- Bednekoff, Peter A.** (1997); Assistant Professor; Biology; Ph.D.; Oxford University
- Beebe, Michael** (1976); Associate Professor; Special Education; Ph.D.; University of Michigan
- Beginin, Igor** (1968); Professor; Art; M.A.; Wayne State University
- Behringer, Ernest R.** (1995); Assistant Professor; Physics and Astronomy; Ph.D.; Cornell University
- Bellamy, Al** (1996); Professor; Interdisciplinary Technology; Ph.D.; Purdue University
- Beller, Jennifer** (1991); Associate Professor; Health, Physical Education, Recreation and Dance; Ph.D.; University of Idaho
- Belskus, Albert W.** (1969); Associate Professor; Marketing; Ph.D.; University of Michigan
- Bemish, Lawrence M.** (1972); Associate Professor; Special Education; Ed.D.; University of Michigan
- Bennett, Normajeane** (1958); Assistant Professor; Associated Health Professions; M.A.; University of Michigan
- Bennion, Donald H.** (1984); Director; Assessment/NCA Self-Study/Reaccreditation; Ph.D.; Ohio University
- Bernstein, Jeffrey** (1997); Assistant Professor; Political Science; Ph.D.; University of Michigan
- Berry, James E.** (1991); Associate Professor and Department Head; Leadership and Counseling; Ed.D.; University of Missouri-Columbia
- Berry, Linda** (1994); Associate Professor; Nursing Education; M.N.; Dalhousie University

- Besana, Gian Mario** (1996); Assistant Professor; Mathematics; Ph.D.; University of Notre Dame
- Best, Margaret E.** (1977); Assistant Professor; Learning Resources and Technologies; M.A.L.S.; University of Michigan
- Bigler, Mary** (1977); Professor; Teacher Education; Ph.D.; University of Michigan
- Bilge, Barbara J.** (1997); Assistant Professor; Sociology, Anthropology and Criminology; Ph.D.; Wayne State University
- Bird, P. George** (1955); Professor; Communication and Theatre Arts; M.S.; University of Wisconsin
- Blair, John** (1970); Professor; Teacher Education; Ph.D.; University of Michigan
- Blakeslee, Ann** (1996); Associate Professor; English Language and Literature; Ph.D.; Carnegie-Mellon University
- Blanchard, P. Nick** (1979); Professor; Management; Ph.D.; Wayne State University
- Blum, Fred** (1974); Professor; Learning Resources and Technologies; Ph.D.; University of Iowa
- Bocklage, Christopher** (1986); Professor; Art; M.F.A.; Southern Illinois University
- Boggs, David** (1998); Professor and Department Head; Business and Technology Education; Ph.D.; Michigan State University
- Bogle, Phillip** (1997); Assistant Professor; Health, Physical Education, Recreation and Dance; M.A.; Ball State University
- Bombyk, Marti** (1996); Professor; Social Work; Ph.D.; University of Michigan
- Bonem, Marilyn K.** (1987); Associate Professor; Psychology; Ph.D.; Utah State University
- Boone, Morell** (1980); Professor and Dean; Learning Resources and Technologies; Ph.D.; Syracuse University
- Booth, Howard D.** (1967); Professor; Biology; Ph.D.; Michigan State University
- Boyer, Lee R.** (1970); Professor; History and Philosophy; Ph.D.; University of Notre Dame
- Boyle, John E.** (1977); Associate Professor; Interdisciplinary Technology; M.A.; Eastern Michigan University
- Brabec, Michael J.** (1985); Professor; Chemistry; Ph.D.; University of Wyoming
- Brackney, Barbara E.** (1975); Professor; Psychology; Ph.D.; University of Michigan
- Bracy, Wanda** (1998); Professor and Department Head; Social Work; Ed.D.; Northern Illinois University
- Braden, Joseph L.** (1970); Professor; Marketing; D.B.A.; Indiana University
- Bradley, Michael** (1995); Assistant Professor; Geography and Geology; Ph.D.; University of Utah
- Brandon, Ernest M.** (1975); Associate Professor; Music; M.M.; Northwestern University
- Bretting, Michael** (1993); Associate Professor and Interim Associate Dean, College of Education; Health, Physical Education, Recreation and Dance; Ph.D.; University of Maryland
- Brewer, Stephen W., Jr.** (1969); Professor; Chemistry; Ph.D.; University of Wisconsin
- Brewer, Timothy R.** (1998); Assistant Professor; Chemistry; Ph.D.; Stanford University
- Bridges, Wallace** (1992); Associate Professor; Communication and Theatre Arts; M.F.A.; Western Illinois University
- Briggs, Douglas** (1985); Associate Professor; Health, Physical Education, Recreation and Dance; Ph.D.; Indiana University
- Britton, Barbara** (1997); Assistant Professor; Mathematics; Ph.D.; Illinois State University
- Brooks, Mary C.** (1978); Director; Risk Management/Worker's Compensation; M.A.; Central Michigan University
- Broughton, Elizabeth A.** (1997); Assistant Professor; Leadership and Counseling; Ed.D.; University of Florida
- Brown, Kaaren Strauch** (1978); Professor; Social Work; M.S.W.; University of Michigan
- Brown-Chappell, Betty** (1996); Assistant Professor; Social Work; Ph.D.; University of Chicago
- Bruss, Paul S.** (1969); Professor; English Language and Literature; Ph.D.; University of Rochester
- Bucciarelli, Elizabeth** (1993); Instructor; Learning Resources and Technologies; M.L.S.; Wayne State University
- Buchanan, Pauline** (1980); Associate Professor; Human, Environmental and Consumer Resources; Ph.D.; University of Michigan
- Buckeye, Donald A.** (1968); Professor; Mathematics; Ed.D.; Indiana University
- Bullard, Rita J.** (1986); Associate Professor; Learning Resources and Technologies; M.A.L.S.; University of Michigan
- Bunsis, Howard** (1998); Associate Professor; Department of Accounting; Ph.D.; University of Chicago
- Burilovich, Linda J.** (1991); Associate Professor; Department of Accounting; Ph.D.; University of Michigan
- Burlingame, Lori** (1997); Assistant Professor; English Language and Literature; Ph.D.; University of Rochester
- Bush-Bacelis, Jean** (1984); Associate Professor; Management; Ph.D.; Wayne State University
- Butch, Elizabeth R.** (1998); Assistant Professor; Chemistry; Ph.D.; Purdue University

## C

- Callaway, Yvonne L.** (1992); Associate Professor; Leadership and Counseling; Ph.D.; Wayne State University
- Camp, Richard R.** (1979); Professor; Management; Ph.D.; Wayne State University
- Caniglia, Joanne** (1994); Associate Professor; Mathematics; Ph.D.; Kent State University
- Cao, Liqun** (1994); Associate Professor; Sociology, Anthropology and Criminology; Ph.D.; University of Cincinnati
- Carlsen-Jones, Michael** (1973); Professor; History and Philosophy; Ph.D.; Ohio State University
- Carroll, James J., III** (1998); Assistant Professor; Physics and Astronomy; Ph.D.; West Virginia University
- Carroll, Timothy B.** (1986); Professor; Mathematics; Ph.D.; Western Michigan University
- Case, Franklin D.** (1962); Professor; English Language and Literature; A.M.; University of Michigan
- Cassar, George** (1968); Professor; History and Philosophy; Ph.D.; McGill University
- Cassidy, Cheryl** (1990); Associate Professor; English Language and Literature; Ph.D.; University of Michigan
- Cere, Ronald C.** (1985); Professor; Foreign Languages and Bilingual Studies; Ph.D.; New York University
- Cerroni-Long, E. Liza** (1987); Professor; Sociology, Anthropology and Criminology; Ph.D.; University of Calif-Los Angeles
- Chan, Amelia S.** (1980); Assistant Dean; College of Business; M.B.A.; Michigan State University
- Chapman, Robert E.** (1992); Assistant Professor; Industrial Technology; Ph.D.; Yale University
- Charles, Mike** (1997); Assistant Professor; Teacher Education; Ph.D.; Arizona State University
- Chatterton, Charles** (1999); Assistant Professor; Health, Physical Education, Recreation and Dance; M.A.; University of Delaware
- Chattopadhyay, Rita** (1984); Professor; Mathematics; Ph.D.; University of South Florida
- Chaudhuri, Ranjan** (1984); Professor; Computer Science; Ph.D.; University of South Florida
- Cherem, Gabriel** (1987); Professor; Geography and Geology; Ph.D.; University of Michigan

- Chew, Robert** (1969); Professor; Art; M.F.A.; University of Illinois
- Chiasson, Victor** (1992); Assistant Professor; Health, Physical Education, Recreation and Dance; M.A.; Central Michigan University
- Chowdhry, Pradeep** (1980); Associate Professor; Management; Ph.D.; University of Arkansas
- Chu, Shenghui** (1980); Professor; Mathematics; Ph.D.; University of Michigan
- Ciacciolo, S. Thomas A.** (1985); Professor and Department Head; Department of Accounting; Ph.D.; Michigan State University
- Cichanski, Allen** (1966); Assistant Professor; Geography and Geology; M.S.; Ohio State University
- Citino, Robert** (1991); Professor; History and Philosophy; Ph.D.; Indiana University
- Clark, George S.** (1975); Associate Professor; Department of Accounting; L.L.M.; Wayne State University
- Clifford, David** (1986); Associate Professor; Associated Health Professions; Ph.D.; University of Michigan
- Clifford, David L.** (1986); Director (Interim); Institute for the Study of Children, Families, and Communities; Ph.D.; University of Michigan
- Cline, Margaret** (1998); Executive Director; University Computing; M.A.; Western Kentucky University
- Cline, William J.** (1970); Professor; Foreign Languages and Bilingual Studies; Ph.D.; State University of New York at Buffalo
- Cogan, Sarah** (1989); Assistant Professor; Learning Resources and Technologies; A.M.L.S.; University of Michigan
- Cole, Kimberly** (1996); Assistant Professor; Music; D.M.A.; Michigan State University
- Collins, Ronald W.** (1965); Professor and Provost and Vice President; Chemistry; Ph.D.; Indiana University
- Colman, Ronald P.** (1972); Assistant Professor; Learning Resources and Technologies; M.L.S.; State University of New York
- Colon, Geff** (1998); Assistant Professor; Health, Physical Education, Recreation and Dance; M.S.; Michigan State University
- Conti, Gerry** (1995); Assistant Professor; Associated Health Professions; M.S.; Eastern Michigan University
- Contis, Ellene T.** (1971); Associate Professor and Interim Associate Dean, College of Arts and Sciences; Chemistry; M.S.; University of Pittsburgh
- Cooper Jr., John K.** (1980); Assistant Professor; Computer Science; Ph.D.; Michigan State University
- Cooper, John G.** (1993); Associate Professor; Communication and Theatre Arts; Ph.D.; Bowling Green State University
- Coyner, Joe** (1969); Associate Professor; Special Education; Sp.A.; Eastern Michigan University
- Crabb, Michael B.** (1987); Director; Dining Services; B.A.; Southern Illinois University
- Crary, David** (1982); Assistant Professor; Economics; Ph.D.; University of Maryland
- Cross, B. Gilbert** (1966); Professor; English Language and Literature; Ph.D.; University of Michigan
- Crouch, Margaret** (1987); Professor; History and Philosophy; Ph.D.; University of Minnesota
- Crowner, Robert P.** (1976); Professor; Management; M.S.; Butler University
- Cullen, Thomas J.** (1994); Associate Professor; Foreign Languages and Bilingual Studies; Ph.D.; Klagenfurt University
- Cupples, Willie P., Jr.** (1994); Associate Professor; Special Education; Ph.D.; Northwestern University
- Czinski, Ben** (1979); Director; Kresge Environmental Center; B.S.; Eastern Michigan University
- D**
- Daeumer, Elisabeth** (1992); Associate Professor; English Language and Literature; Ph.D.; Indiana University
- Dahl, Carolyn C.** (1998); Dean; Continuing Education; Ed.D.; University of Georgia
- Daisey, Peggy** (1994); Associate Professor; Teacher Education; Ph.D.; Kansas State University
- Danak, Jagdish T.** (1969); Associate Professor; Management; Ph.D.; University of Oklahoma
- Dansky, Jeffrey L.** (1976); Professor; Psychology; Ph.D.; Bowling Green University
- Darling, Lawrence** (1992); Assistant Professor; Industrial Technology; M.S.; Eastern Michigan University
- Davis, Judy** (1993); Associate Professor; Marketing; Ph.D.; Michigan State University
- Davis, Laura** (1994); Associate Professor; Social Work; Ph.D.; Cornell University
- Davis, Margaret** (1994); Associate Professor; Art; M.F.A.; University of Michigan
- Day, E. Catherine** (1982); Professor; Foreign Languages and Bilingual Studies; Ph.D.; University of Illinois
- Dayal, Sahab** (1994); Professor; Management; Ph.D.; Cornell University
- Deckert, Glenn D.** (1993); Associate Professor; Foreign Languages and Bilingual Studies; Ph.D.; University of Illinois at Urbana-Champaign
- Defebaugh, Sandra J.** (1987); Associate Professor; Marketing; J.D.; Detroit College of Law
- deLaski-Smith, Deborah** (1978); Professor; Human, Environmental and Consumer Resources; Ph.D.; Michigan State University
- Delph, Ronald** (1993); Associate Professor; History and Philosophy; Ph.D.; University of Michigan
- Delprato, Dennis J.** (1969); Professor; Psychology; Ph.D.; Michigan State University
- Devine, Elton A.** (1976); Professor; Department of Accounting; Ph.D.; Louisiana State University
- Dewan, Abdullah** (1984); Associate Professor; Economics; Ph.D.; University of Kentucky
- Diallo, Alahassane** (1985); Professor, Department Head; Finance and Computer Information Systems; Ph.D.; Ohio State University
- Diamond, Barbara** (1986); Professor; Teacher Education; Ph.D.; Michigan State University
- Dickie, Virginia** (1988); Associate Professor; Associated Health Professions; Ph.D.; Wayne State University
- Dijterle, Jill** (1998); Assistant Professor; History and Philosophy; Ph.D.; Ohio State University
- Diles, David** (1991); Director; Intercollegiate Athletics; Ed.D.; University of Michigan
- DiMantova, Walter** (1986); Director; Centers for Corporate Training; M.A.; University of Michigan
- Dionne, Craig** (1995); Assistant Professor; English Language and Literature; Ph.D.; Carnegie-Mellon University
- Dirette, Diane** (1996); Instructor; Associated Health Professions; Ph.D.; New York University
- Ditzhazy, Helen R.** (1987); Professor; Leadership and Counseling; Ph.D.; University of Michigan
- Dodge, H. Robert** (1990); Professor and Department Head; Marketing; Ph.D.; Ohio State University
- Domino, Brian** (1996); Assistant Professor; History and Philosophy; Ph.D.; Pennsylvania State
- Dotson, Steve** (1988); Computer Coordinator; Computer Science; M.S.; Eastern Michigan University
- Douglass, Richard** (1987); Professor; Associated Health Professions; Ph.D.; University of Michigan

- Doyle, Patrick J.** (1974); Vice President, Treasurer to the Board of Regents; Business and Finance; M.A.; Eastern Michigan University
- Doyle, Timothy** (1986); Instructor; Interdisciplinary Technology; M.A.; Eastern Michigan University
- Drake, Sandra** (1995); Assistant Professor; Associated Health Professions; Ph.D.; University of Minnesota
- Dugan, J. Sanford** (1974); Professor; Foreign Languages and Bilingual Studies; Ph.D.; Washington University, Missouri
- Duley, Margot I.** (1992); Professor; History and Philosophy; Ph.D.; University of London
- Duncan, Jeffrey L.** (1971); Professor; English Language and Literature; Ph.D.; University of Virginia
- Durham, Lora** (1982); Assistant Professor; Mathematics; M.A.; Eastern Michigan University

## E

- Easto, Patrick** (1970); Professor; Sociology, Anthropology and Criminology; Ph.D.; Syracuse University
- Edgren, John** (1979); Professor; Economics; Ph.D.; University of Michigan
- Edwards, Elizabeth A.** (1992); Associate Professor; Marketing; Ph.D.; University of Michigan
- Eggers, Carter J.** (1967); Professor; Music; M.M.; Ithaca College
- Ehrlich, Allen S.** (1968); Professor; Sociology, Anthropology and Criminology; Ph.D.; University of Michigan
- Eisenbach, Jamin** (1990); Associate Professor; Biology; Ph.D.; University of California-Berkley
- Eiss, Harry E.** (1987); Professor; English Language and Literature; Ph.D.; University of North Dakota
- Ellis, Wayne** (1979); Associate Professor; Department of Accounting; Ph.D.; University of Michigan
- England, Robert W.** (1968); Director; Recreation/Intramurals; M.A.; University of Michigan
- Engwenyu, Joseph**; Instructor; History and Philosophy
- Erenburg, Sharon J.** (1986); Associate Professor; Economics; Ph.D.; University of Illinois
- Erwin, J. Michael** (1984); Director; Career Services Center; Ph.D.; University of Michigan
- Eshleman, Clayton** (1986); Professor; English Language and Literature; M.A.; Indiana University
- Esposito, Alfredo** (1990); Associate Professor; Economics; Ph.D.; Temple University
- Esteva, Juan C.** (1990); Associate Professor; Finance and Computer Information Systems; Ph.D.; Wayne State University
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- Ojala, Carl** (1970); Professor; Geography and Geology; Ph.D.; University of Georgia
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- Okopny, D. Robert** (1988); Professor; Department of Accounting; Ph.D.; Texas A & M University
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