INFORMATION REQUESTS

Please address inquiries to the following offices at
Eastern Michigan University, Ypsilanti 48197

AREA CODE: 313

ACADEMIC RECORDS .................................................... Office of the Registrar, 302 Pierce, 487-4111
Catalogs (undergraduate)
Degree requirements
Re-enrollment application
Teacher certification
Transcripts

ACADEMIC SERVICES .................................................. Academic Advising Center, 301 Pierce, 487-2170
Advising (undergraduate)
Courses and programs of study
Evening advising and programs of study

ADMISSION (UNDERGRADUATE) ........................................... Admissions Office, 401 Pierce, 487-3060
International students
New students
Non-traditional students
Transfer students

ADMISSION (GRADUATE) .................................................. Graduate School, Starkweather, 487-3400
Advising
Catalogs
Programs of study

ALUMNI RELATIONS ....................................................... Alumni Relations Office, 015 Welch, 487-0250

ATHLETIC TEAMS AND TICKETS ............................................. Athletics Office, 200 Bowen Field House, 487-0351

BILLING AND FEES ....................................................... Student Accounting Office, 203 Pierce, 487-3335

BOOKS (NEW, USED AND SUPPLIES) ....................................... Barnes and Noble Bookstore, McKenny Union, 487-1000

CAMPUS VISITS (INDIVIDUALS OR GROUPS) ......................... Admissions On-Campus Programs, 202 Pierce, 487-1111

CHILDREN'S INSTITUTE .................................................. Snow Health Center, Ground Floor, 487-1126

CLUBS AND ORGANIZATIONS ........................................... Campus Life, 221 Goodison, 487-3045

CONTINUING EDUCATION .................................................. 321 Goodison, 487-0407
Conferences and workshops
Correspondence courses
In-house training
Off-campus credit courses
Professional development

EDUCATIONAL CENTERS ................................................ Center for Entrepreneurship ......................... 34 N. Washington, 487-0225
Corporate Education Center .................................. 1275 S. Huron St., 487-0600
Institute for Community and Regional Development ........................................ 34 N. Washington, 487-0243
Institute for the Study of Children and Families ........................................ 487-0372
National Institute for Consumer Education ........................................... 207 Rackham, 487-2292

EDUCATIONAL RESOURCES ............................................. Learning Resources and Technologies, 487-0020
Center for Instructional Computing ........................................... 487-1347
Instructional Support Center ........................................... 487-1380
Library .................................................................................. 487-3316
Media Services Center ....................................................... 487-2220

FINANCIAL AID ................................................................. Financial Aid Office, 404 Pierce, 487-0455
Loans and grants-in-aid
Scholarships

HEALTH SERVICES .......................................................... Snow Health Center, 487-1122
Counseling services ....................................................... Snow Health Center, 487-1118

HONORS PROGRAM ....................................................... Jones-Goddard Community of Scholars, 487-0341

LIVING ACCOMMODATIONS .............................................. Housing Office, Dining Commons #1, 487-1300

PARENTS ASSOCIATION .................................................. Fourth Floor Pierce, 487-0193

REGISTRATION FOR CLASSES ........................................ Registration Office, 303 Pierce, 487-2300

RECREATION AND INTRAMURAL SPORTS ......................... Olds Student Recreation Center, 487-1338

VETERANS SERVICES OFFICE ......................................... Veterans Services Office, 201 Goodison, 487-3119
ACCREDITED BY:
The North Central Association of Colleges and Secondary Schools
Dr. Patricia Thrash, Director
159 North Dearborn
Chicago, IL 60601
(312) 263-0456

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

The contents of this Catalog are subject to revision at any time. The University
reserves the right to change fees, courses, policies, programs, services, and personnel
as required.

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UNIVERSITY CALENDAR

1993-94 ACADEMIC CALENDAR

FALL SEMESTER, 1993

Aug. 28, Saturday ......................... Fresnunan residence hall move-in day
Aug. 28, 29, 30, Saturday, Sunday,
Monday ........................................ Fresnunan Orientation
Aug. 29, 30, 31 Sunday, Monday,
Tuesday ........................................ Upperclass residence hall move-in days
Sept. 1, Wednesday ........................ Labor Day (no classes)
Sept. 6, Monday ............................ No classes after 5 p.m.
Nov. 24, Wednesday ........................ No classes after 5 p.m.
Nov. 25-28, Thursday through Sunday .... Thanksgiving recess
Nov. 29, Monday ................................ Classes resume
Dec. 14-18, Tuesday through Saturday .... Final examinations
Dec. 18, Saturday ............................ Fall session closes
Dec. 19, Sunday (afternoon) ................ Fall Commencement

WINTER SEMESTER, 1994

Jan. 4, Tuesday ............................ Move-in day and Winter Orientation
Jan. 5, Wednesday ........................... Classes begin
Feb. 20-27, Sunday through Sunday .......... Winter recess
Feb. 28, Monday ............................. Classes resume
April 1-3, Friday through Sunday .......... Spring recess
April 4, Monday .............................. Classes resume
April 21-26, Thursday through Tuesday ..... Final examinations
April 24, Sunday (afternoon) ............... Winter Commencement
April 26, Tuesday ............................ Winter session closes

SPRING SESSION, 1994

May 3, Tuesday ............................... Move-in day
May 4, Wednesday ........................... Classes begin
May 30, Monday ............................. Memorial Day (no classes)
June 13 & 14, Monday & Tuesday .... Six-week final examinations
June 23 & 24, Thursday &
Friday .......................... Seven and one-half week final examinations
June 24, Friday ............................... Spring session closes

SUMMER SESSION, 1994

June 26, Sunday .............................. Move-in day
June 27, Monday ............................ Classes begin
July 4, Monday ............................. Independence Day (no classes)
Aug. 4 & 5, Thursday & Friday .......... Six-week final examinations
Aug. 16 & 17, Tuesday &
Wednesday ........................ Seven and one-half week final examinations
Aug. 19, Friday ............................. Summer session closes

1994-95 ACADEMIC CALENDAR

FALL SEMESTER, 1994

Sept. 3, Saturday ........................... Fresnunan residence hall move-in day
Sept. 3, 4, 5, Saturday, Sunday, Monday .... Fresnunan Orientation
Sept. 4, 5, Sunday,
Monday ............................ Upperclass residence hall move-in days
Sept. 7, Wednesday ........................ Classes begin
Nov. 23, Wednesday ........................ No classes after 5 p.m.
Nov. 24-27, Thursday through Sunday .... Thanksgiving recess
Nov. 28, Monday ............................. Classes resume
Dec. 13-17, Tuesday through Saturday .... Final examinations
Dec. 17, Saturday ............................ Fall session closes
Dec. 18, Sunday ............................. Fall Commencement

WINTER SEMESTER, 1995

Jan. 8, Sunday .............................. Move-in day and Winter Orientation
Jan. 9, Monday ............................... Classes begin
Feb. 20-26, Monday through Sunday .......... Winter recess
Feb. 27, Monday ............................. Classes resume
April 14-16, Friday through Sunday ........................ Spring recess
April 17, Monday ............................. Classes resume
April 23, Sunday ............................. Winter Commencement
April 25-29, Tuesday through Saturday .... Final examinations
April 29, Saturday ............................ Winter session closes

SPRING SESSION, 1995

May 2, Tuesday ............................... Move-in day
May 3, Wednesday ........................... Classes begin
May 29, Monday ............................. Memorial Day (no classes)
June 12 & 13, Monday & Tuesday .... Six-week final examinations
June 22 & 23, Thursday &
Friday ........................ Seven and one-half week final examinations
June 23, Friday ............................. Spring session closes

SUMMER SESSION, 1995

June 25, Sunday .............................. Move-in day
June 26, Monday ............................ Classes begin
July 4, Tuesday ............................. Independence Day (no classes)
Aug. 3 & 4, Thursday & Friday .......... Six-week final examinations
Aug. 15 & 16, Tuesday &
Wednesday ........................ Seven and one-half week final examinations
Aug. 18, Friday ............................. Summer session closes
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 scenic trees 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, extensive music and fine arts programs, and also 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 nearby and far-distant students choose to live in EMU's dormitories 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.

Prospective students desiring to visit the campus are greeted by EMU's University Ambassadors Society, which provides tours and arranges visits with faculty in fields of interest to high school or transfer students. Orientation is provided for all incoming students.

Once on campus, the University catalog becomes the student's bible of information as personal programs are planned with the help of University counselors and faculty advisers.

UNIVERSITY PROFILE

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

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

New colleges precipitated the need for additional acreage. The university campus expanded from its original 275 acres on the south side of the Huron River to an additional 182 acres west of the campus primarily for student residences and athletic facilities. Among the newest buildings on campus are the Olds/Robb Student Recreation Center, opened in the fall of 1982 to provide needed recreational and intramural activities for the growing student body; the Sponberg Theatre addition to the Quirk Building, dedicated in January 1986; and the Coatings Research Building, opened in fall 1987. EMU's campus also extends into downtown Ypsilanti, where its new College of Business building is located.

Student enrollment continued to increase in the 1980s. The rapid college matriculation experienced in the late 1960s peaked in 1970 at 19,965, stabilized at 18,500 plus in 1979, and then began its upward climb again, totaling 25,936 in the fall of 1991. The 1993 Higher Education Directory lists EMU as the 50th largest university.

Today's student body represents both full-time and part-time students, indicative of the national trend of mature adults returning to complete their college education and to prepare for new careers in a changing society. Women comprise almost 60 percent of EMU's student body. Many students work part-time and others are assisted by EMU's Office of Financial Aid in work-study programs to meet the costs of a college education.

Included in the geographic distribution of EMU undergraduates in 1987 were 92 percent from the state of Michigan, 4 percent from out-of-state, and 3.7 percent who listed citizenship from countries other than the United States. Approximately 79 percent of the students from other states were from Ohio, largely because of a reciprocity tuition plan.

Program development has consistently adapted to the needs of entering and returning students as the world greets the new era of high technology. College faculty as well as college students are becoming computer literate. More opportunities are being offered to those seeking practical experience through business-industry internships and cooperative education experiences. Courses are provided in approximately 180 fields of study for the ever-diversifying student body.

EMU's perspective also has grown larger, not only in on-campus program developments but also in irregular or special courses offered in 14 counties through its Division of Continuing Education and in cooperative agreements with nearby community colleges. The Office of International Studies plans spring/summer study credit programs abroad and student-faculty exchanges with the University of Warwick, the Bulmershe College of Higher Education, and Nonington College, all in England.

In addition, the Corporate Education Center provides a vital link between research theory and practical application as it is called upon by businesses, schools, industries, and agencies to lend its expertise.

Eastern Michigan University today is known world-wide for its educational contributions. Its 76,770 graduates are scattered among many countries as well as coast-to-coast in the United States, both strengthening and supporting the foundation that is the multipurpose university in Ypsilanti, Michigan.

Eastern Michigan University campuses and buildings are detailed on the inside back cover.
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 constituents. 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.

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**UNIVERSITY GOVERNMENT**

Eastern Michigan University is an autonomous university governed by an eight-member Board of Regents appointed by the governor and subject to the approval of the state Senate. Financial support for the University comes from tax money paid by the people of Michigan and receipt of student tuition and fees.

Members of the Board of Regents, whose terms expire at the end of the calendar year listed, are Frederick L. Blackmon (2000), Bloomfield Hills; James Chifum (96), Ypsilanti; Robert A. DeMattia ('94), Northville, chair; Anthony A. Dereziński ('96), Ann Arbor; Philip A. Incamati ('94), Linden; Mara M. Letica ('98), Bloomfield Hills; Carl Pursell (2000), Plymouth; and Gayle P. Thomas ('98), Dearborn, vice-chair.

Policies complied with by the University affirm the admission and participatory rights of all individuals, regardless of gender, race, color, religion, creed, national or ethnic origin. These include:

Civil Rights Act: The University will work for the elimination of improper discrimination in organizations recognized by the University and in non-University sources wherein students and employees of the University are involved.

Equal Opportunity and Affirmative Action: The University does not discriminate in the administration of its educational and admissions policies, scholarships and loan programs. It is its practice to take affirmative action in personnel matters.

Title IX, Education Amendments of 1972: The University complies with the athletic regulations which prohibit discrimination on the basis of sex.

Americans with Disabilities Act: The University will work to ensure that students who have disabilities will receive accommodations which will equalize their ability to compete with other students in academic classes as well as physical access to student activities or university-sponsored events.

Students encountering difficulty with access to full participation to University activities should contact the dean of students at 218 Goodison Hall. Individuals who believe that the University is not in compliance are invited to contact the executive director of human resources at (313) 487-1052.

**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 degree.

- **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 National Association of Schools of Music; Physics and Astronomy; Political Science; Psychology; Sociology; Anthropology, and Criminology; Women's Studies.
- **College of Business**: accredited by the American Assembly of Collegiate Schools of Business; 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; Teacher Education; Special Education—accredited by the American Speech and Hearing Association for its Speech 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, Occupational Therapy—accredited by the American Medical Association in collaboration with the American Occupational Therapy Association and National Accrediting Agency for Clinical Laboratory Sciences); Human, Environmental and Consumer Resources—accredited by the American Home Economics Association, and for its Dietetics Program by the American Dietetic Association; accredited by the Foundation for Interior Design Research (FIDER), and the Child Development Laboratory by the National Academy of Early Childhood Programs; Nursing Education—accredited by the National League for Nursing; Social Work—baccalaureate program accredited by the Council on Social Work Education.

College of Technology: accredited by the National Association of Industrial Technology; Business and Industrial Education; Industrial Technology; Interdisciplinary Technology; Military Science.

The sections on Admission, 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.

ADMISSION

ADMISSION to Eastern Michigan University is open to all students who have the potential to succeed and the motivation to continue their education. An extensive academic scholarship program has been developed to award and recognize students who have demonstrated strong academic ability or unusual talent (see Financial Aid section). A wide variety of service and support activities is provided for those who wish to improve their academic skills and performance.

ACCEPTANCE into the University is dependent upon meeting the admission criteria described below. All students may take courses within any of the University's colleges. Many academic programs are designed to include courses from more than one college; however, admission to the University does not preclude meeting specific program requirements.

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

APPLICATION FOR ADMISSION is a simple process that requires the submission of a completed application form, supporting academic records, and a $20 non-refundable application fee. The required supporting records vary with the category of admission.

FRESHMAN APPLICANTS entering college for the first time must submit their official high school transcript and results of the ACT or the Scholastic Aptitude Test (SAT). 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 student category.

Students not qualifying for regular admission under the above criteria may be considered for the PASS (Promote Academic Survival and Success) program or the Summer Incentive Program (SIP). Admission to both programs is by University selection only.

TRANSFER APPLICANTS who have earned credit at a college or university other than Eastern Michigan University must provide an official transcript from each institution attended. All applicants must also submit an official high school transcript (or equivalent GED). Applicants under the age of 21 who have earned less than 12 semester hours of transferrable credit (18 quarter hours) are also required to submit results of the ACT or SAT.

Students with credit only from a two-year or community college must earn a minimum of 60 semester hours at EMU to complete degree requirements, exclusive of physical activity or junior or community college credit.

NON-TRADITIONAL STUDENTS who are 21 years of age or older and have a high school diploma (or its equivalent) but have not attempted college work previously may be considered for admission without further requirements. Evidence of the high school diploma is expected. The student may be required to take selected tests for advising purposes only.

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, 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 this University’s academic policies. Applications for admission as a guest student may be obtained either at the home institution or the Admissions Office of EMU. Guest applicants who possess a bachelor’s degree must apply through the Graduate School. NOTE: Space is seldom available for guests during the fall semester.

NON-MATRICULATED STUDENTS are permitted to take a course or courses for one semester only without going through the regular admission process. Students in this category must present unofficial records indicating their acceptability. Any subsequent enrollment requires regular admission to the University.

OFF-CAMPUS AND CONTINUING EDUCATION STUDENTS (see Continuing Education) are subject to regular admission criteria. However, they may be admitted as non-matriculated students for one semester. Applicants planning to continue with other courses should apply for regular admission in the appropriate category described above.

SECOND BACHELOR’S DEGREE: This option is chosen by those already holding a bachelor’s degree from an accredited college/university who are now changing careers. (See Post-Baccalaureate Academic Options)

DUAL ENROLLMENT may be approved for a student whose primary enrollment is in a high school (provided space 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 any semester and will need the following documentation in support of the application:

1. Write for and complete an application for admission.
2. Provide original documents of transcripts of academic credit or certified copies of original 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 Michigan Test). In some cases, foreign students will be required, as a condition of admission, to take one or more courses in spoken or written English for foreign students.
4. Present a statement of financial responsibility covering the total cost of attending the University.

Undergraduate international students' English proficiency requirements are listed under the Department of Foreign Languages and Bilingual Studies (page 110).

POST-BACCALAUREATE ACADEMIC OPTIONS

Second bachelor's degree

The prospective candidate should make an appointment with the coordinator of Second Bachelor's Degree Programs in the Academic Advising Center, 301 Pierce Hall (313-487-2170) for evaluation of transcripts and development of a program of study. The program is approved by the appropriate academic department and is the basis of degree completion.

General requirements for a Second Bachelor's Degree are as follows:

- Completion of a first bachelor's degree from an accredited college or university with a minimum of 120 semester hours.
- Completion of a basic studies (liberal arts) program.
- Completion of a course in American Government or equivalent.
- Completion of curricular requirements for new academic major.
- Completion of a minimum of 30 semester hours post-baccalaureate at Eastern Michigan University.

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 Undergraduate Admissions Office, 401 Pierce Hall. The Undergraduate Admissions Office requires an application, a $20 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 may pursue a Bachelor of Arts degree), should re-enroll as a Second Bachelor's candidate through the Undergraduate Records Office, 302 Pierce Hall. Admission as a re-enrollee is based upon the recommendation of the coordinator of Second Bachelor's Programs. (See Re-Enrollment)

Teacher certification

Students who possess a bachelor's degree and are seeking teacher certification should contact the Undergraduate Records Office in 302 Pierce Hall (313-487-4202) 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 through the Graduate School.

RE-ENROLLMENT

Former EMU students desiring to re-enroll at EMU after an absence of one year should make application in the Academic Records Office, 302 Pierce Hall, at least two months 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 their application for re-enrollment can be processed.

Students who have attended any institution of higher education since being enrolled at Eastern Michigan University must secure a transcript of work done elsewhere and submit it to the Academic Records Office with an application for re-enrollment.

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

If the student wishes to advance register for a session, the application for re-enrollment must be filed no later than the following dates:

For fall semester .................................................... August 1
For winter semester ............................................. December 1
For spring session .................................................. April 1
For summer session ............................................ May 15

ALTERNATIVE CREDIT OPTIONS

Eastern Michigan University offers students the opportunity to earn up to 30 hours of academic credit by examination and, in some instances, to 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)

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 basic studies requirements.

For more information, contact the Academic Advising Center.

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 Academic Records Office, 302 Pierce.
2. Take paper provided by the Academic Records Office 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 Academic Records Office, 302 Pierce 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.

UNIVERSITY HONORS PROGRAM

Robert Holkeboer
Director
Jones-Goddard Community of Scholars
487-0341

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 basic studies level, in departments or professional programs, or both. Honors courses feature small class size, outstanding instructors, and enriched course materials.

Graduation with honors requires a cumulative GPA of at least 3.3 and the completion of either 18 hours of honors credit in basic studies or 12 hours of departmental honors credit, including the senior thesis. The designation “with honors” is separate from the “laurea” designations, which refer strictly to GPA.

Students who complete the program are appropriately recognized by special designations on their transcripts, certificates of achievement, the honors medallion, press releases, and letters of recommendation from the honors director explaining their achievements.

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

For further information, contact the University Honors Program office, 250 Jones Hall, Community of Scholars, (313) 487-0341.
<table>
<thead>
<tr>
<th>Department</th>
<th>Exam/Subject</th>
<th>Min. Score</th>
<th>Credit Awarded*</th>
<th>Placement</th>
<th>Departmental Credit-by-exam Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>AP History of Art</td>
<td>3</td>
<td>FA 101 (3)</td>
<td>FA 107</td>
<td>with special permission</td>
</tr>
<tr>
<td></td>
<td>AP Studio Art: General</td>
<td>4</td>
<td>FA 108 (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Portfolio or drawing portfolio</td>
<td>3</td>
<td>FAY 179 (3) and FA 379 (3)</td>
<td>See department head</td>
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<td></td>
<td><strong>NOTE: An additional three credit hours may be awarded to art majors and minors through departmental evaluation of art portfolio.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>CLEP General Biology</td>
<td>46</td>
<td>BIO 105 (4) - Basic studies or elective credit only</td>
<td>BOT 221 or ZOO 222</td>
<td>with special permission</td>
</tr>
<tr>
<td></td>
<td>IB (Higher Level)</td>
<td>3</td>
<td>BIO 105 (4) - Basic studies or elective credit only</td>
<td>BOT 221 or ZOO 222</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AP General Biology</td>
<td>4</td>
<td>BIO 105 (4) - Basic studies or elective credit only</td>
<td>BOT 221 or ZOO 222</td>
<td></td>
</tr>
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<td>Chemistry</td>
<td>CLEP General Chemistry</td>
<td>48</td>
<td>CHM 121 (3)</td>
<td>CHM 122</td>
<td>with special permission</td>
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<td></td>
<td>AP Chemistry</td>
<td>3</td>
<td>CHM 121 (3)</td>
<td>CHM 122</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>3</td>
<td>CHM 121 (3) and CHM 123 (3)</td>
<td>CHM 122</td>
<td></td>
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<tr>
<td>Computer Science</td>
<td>CLEP Information Systems &amp;</td>
<td>52</td>
<td>CSC 137 (3)</td>
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<tr>
<td></td>
<td>Computer Programming</td>
<td>3</td>
<td>CSC 138 (3)</td>
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<td></td>
<td>AP Computer Science A</td>
<td>4</td>
<td>CSC 138 (3) and CSC 238 (3)</td>
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<td></td>
<td>AP Computer Science AB</td>
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<td>CSC 138 (3) and CSC 238 (3)</td>
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<td>Intro to Microeconomics</td>
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<td></td>
<td>AP Macroeconomics</td>
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<td></td>
<td>AP Microeconomics</td>
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<td>ECO 202 (3)</td>
<td></td>
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<tr>
<td>English</td>
<td>CLEP College Composition**</td>
<td>50</td>
<td>ENG 121 (3)</td>
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<td></td>
<td>English Literature**</td>
<td>65</td>
<td>ENG 121 (3) and ENG 225 (3)</td>
<td>any 200-300 level English course</td>
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<tr>
<td></td>
<td>AP English Language</td>
<td>65</td>
<td>LIT 100 (3)</td>
<td>LIT 101, 102 or 103</td>
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<tr>
<td></td>
<td>AP English Literature</td>
<td>3</td>
<td>ENG 121 (3)</td>
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<td></td>
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<tr>
<td></td>
<td>AP English Literature</td>
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<td>ENG 121 (3) and ENG 225 (3)</td>
<td>any 200-300 level English course</td>
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<td></td>
<td></td>
<td>3</td>
<td>LIT 100 (3)</td>
<td>LIT 101, 102 or 103</td>
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<td></td>
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<td>4</td>
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<td>Foreign Languages**</td>
<td>AP French Language or</td>
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<td>FRN 121 (5)</td>
<td>FRN 122</td>
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<tr>
<td></td>
<td>French Literature</td>
<td>4</td>
<td>FRN 122 (5)</td>
<td>FRN221</td>
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<td></td>
<td>German Language</td>
<td>3</td>
<td>GER 121 (5)</td>
<td>GER 122</td>
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<tr>
<td></td>
<td>or minors</td>
<td>4</td>
<td>GER 122 (5)</td>
<td>GER221</td>
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<tr>
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<td><strong>Additional credit may be offered to intended majors or minors</strong></td>
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<td></td>
<td>AP Latin: Vergil or Catullus-Horace</td>
<td>3</td>
<td>LAT 121 (5)</td>
<td>LAT 122</td>
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<td>4</td>
<td>LAT 122 (5)</td>
<td></td>
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<tr>
<td></td>
<td>Spanish Language or</td>
<td>3</td>
<td>SPN 121 (5)</td>
<td>SPN 122</td>
<td></td>
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<td></td>
<td>Spanish Literature</td>
<td>4</td>
<td>SPN 122 (5)</td>
<td>SPN 201</td>
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<td>CLEP College French I</td>
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<td>FRN122</td>
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<td>College French II</td>
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<td>FRN 121/122 (3)</td>
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<td>College German I</td>
<td>44</td>
<td>GER 121 (3)</td>
<td>GER 122</td>
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<td></td>
<td>44</td>
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<td>GER221</td>
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<td>College German II</td>
<td>44</td>
<td>GER 121/122 (3)</td>
<td>GER 122</td>
<td></td>
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<tr>
<td></td>
<td>College Spanish I</td>
<td>44</td>
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<td>SPN 122</td>
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<td></td>
<td>44</td>
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<td>SPN 201</td>
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<tr>
<td>History</td>
<td>CLEP American History I</td>
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<td>American History II</td>
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<td>Western Civ. I</td>
<td>50</td>
<td>HST 101 (3)</td>
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<td></td>
<td>Western Civ. II</td>
<td>50</td>
<td>HST 102 (3)</td>
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<td></td>
<td>AP United States History</td>
<td>3</td>
<td>HST 123 (3)</td>
<td>HST 124 (3)</td>
<td></td>
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<tr>
<td></td>
<td>AP European History</td>
<td>4</td>
<td>HST 123 (3) and HST 124 (3)</td>
<td>HST 102</td>
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<td></td>
<td></td>
<td>4</td>
<td>HST 101 (3) and HST 102 (3)</td>
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<tr>
<td>Management</td>
<td>CLEP Intro to Business Management</td>
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<td>MGT 382 (3)</td>
<td>MGT 386</td>
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<td>Marketing</td>
<td>CLEP Intro to Business Law</td>
<td>55</td>
<td>LAW 293 (3)</td>
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<td>Mathematics</td>
<td>CLEP College Algebra</td>
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<td>MTH 105 (3)</td>
<td>MTH 118, MTH 119 or MTH 120 or MTH 222</td>
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<td>Trigonometry</td>
<td>53</td>
<td>MTH 107 (2)</td>
<td>MTH 120 or MTH 122</td>
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<td></td>
<td>AP Calculus AB</td>
<td>3</td>
<td>MTH 120 (4)</td>
<td>MTH 121</td>
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<td></td>
<td>Calculus BC</td>
<td>3</td>
<td>MTH 120 (4) and MTH 121 (4)</td>
<td>MTH 122 or MTH 223</td>
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<tr>
<td>Music</td>
<td>AP Music Listening and Literature</td>
<td>3</td>
<td>MUS 107 (2)</td>
<td></td>
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<tr>
<td></td>
<td>Music Theory</td>
<td>3</td>
<td>MUS 100 (3)</td>
<td></td>
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<td>Physics</td>
<td>AP Physics B</td>
<td>3</td>
<td>PHY 221 (4)</td>
<td>PHY 222</td>
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<td></td>
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<td>4</td>
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<td>AP Physics C</td>
<td>3</td>
<td>PHY 223 (5) and PHY 224 (5)</td>
<td></td>
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<td>Political Science</td>
<td>CLEP American Government</td>
<td>50</td>
<td>PLS 112 (3)</td>
<td>Most upper-level courses</td>
<td>yes</td>
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<td></td>
<td>AP American Govt. and Politics</td>
<td>3</td>
<td>PLS 112 (3)</td>
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<td></td>
<td>AP Comparative Govt. and Politics</td>
<td>3</td>
<td>PLS 211 (3)</td>
<td></td>
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<tr>
<td>Psychology</td>
<td>CLEP Introductory Psychology</td>
<td>50</td>
<td>PSY 101 (3)</td>
<td>Most upper-level courses</td>
<td>yes</td>
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<td></td>
<td>AP Psychology</td>
<td>3</td>
<td>PSY 101 (3)</td>
<td></td>
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<tr>
<td>Sociology</td>
<td>CLEP Introduction to Sociology</td>
<td>50</td>
<td>SOC 105 (3)</td>
<td>SOC 202 or SOC 204</td>
<td>yes</td>
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</tbody>
</table>
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.

The registration fee is $40 for each fall and winter semester and $30 for each spring and summer session. This service fee is assessed at the time the student registers and is non-refundable.

An additional late registration fee of $10 is charged students who, for any cause, do not complete registration prior to the official first day of classes each semester. Checks returned by a bank constitute late registration, and a late registration fee is charged.

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 as for credit classes. Tuition rates per credit hour, using the fall 1993 levels are:

1993-94 Michigan Resident Rates
Undergraduate courses lower level (100-200) ....................... $82.75
Undergraduate courses upper level (300-400) ....................... $88.50
Graduate courses (500-600 level) .................................. $120.00

1993-94 Non-Resident Rates
Undergraduate courses lower level (100-200) ....................... $212.00
Undergraduate courses upper level (300-400) ....................... $224.00
Graduate courses (500-600 level) .................................. $281.00

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 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. 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 90 percent may 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 to a maximum of $100 per semester or session 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.

The privilege of using the installment payment plan for tuition (room and board) is denied to students whose University account has been in arrears in amounts exceeding $50 for periods beyond 30 days.

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 classes. 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

During the first five class days of the fall/winter semesters and the first four class days of the spring/summer sessions, a program fee of $10 per transaction will be assessed for each student-initiated program adjustment. For the purpose of determining the program adjustment fee, one drop accompanied simultaneously by one add will be considered as one transaction.

Individual adds or individual drops will be considered as individual transactions and will be assessed $10 each. 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 the tuition assessment for the fall and winter semesters, less a late withdrawal fee of $10, will be made to those students who cancel their registration or withdraw from the University prior to the sixth class day. For the spring and summer sessions, a 100 percent credit adjustment will be made during the first three days of classes. Actual dates are printed in the Class Schedule for each semester and session.
A credit adjustment of 50 percent of the tuition assessment for the fall and winter semesters will be made to those students who withdraw from the University between the sixth and fifteenth class day. For the spring and summer sessions, a 50 percent credit adjustment will be made during the fourth through seventh class days 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
A credit adjustment of 100 percent of the difference in tuition assessment for the fall and winter semesters will be made to those students who decrease their academic load prior to the sixth day of classes. For the spring and summer sessions, a 100 percent credit adjustment will be made during the first three days of classes. Actual dates are printed in the Class Schedule for each semester and session.

A credit adjustment of 50 percent of the difference in tuition assessment for the fall and winter semesters will be made for classes dropped between the sixth and fifteenth class day. For the spring and summer sessions, a 50 percent credit adjustment will be made during the fourth and seventh class days of the session. 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 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 Assistant Controller of Student Business Services at the above address. 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 Vice President for Business and Finance (101 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 and mailing of final grades may be denied on the basis of a lack of timeliness.

SERVICE FEES
Room and board fees are published by the Housing Office and are set by action of the Board of Regents. See the 1993-94 estimated fee schedules at the end of this section.

A Health Care fee is charged at the rate of $1.95 per credit hour. 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 two dollars ($2) for each of the fall and winter semesters and one dollar ($1) for each of the spring and summer sessions and 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 Student Activity/Facility fee of $47 per semester for fall and winter semesters is assessed of all students not living in University housing taking four or more credit hours. All students paying this fee are eligible for free admission to home basketball and football games. All students not living in University housing are assessed a Student Activity fee of $23.50 during the spring and summer terms. 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.

The 1993-94 motor vehicle rates are as follows:

<table>
<thead>
<tr>
<th>Permit Type</th>
<th>1993/94 Permit Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commmuter Permit:</td>
<td></td>
</tr>
<tr>
<td>Fall/Winter (6:00 am-2:00 am)</td>
<td>$70.00</td>
</tr>
<tr>
<td>Evening Fall/Winter (4:00 pm-2:00 am)</td>
<td>$40.00</td>
</tr>
<tr>
<td>Spring or Summer</td>
<td>17.50</td>
</tr>
<tr>
<td>Resident Permit:</td>
<td></td>
</tr>
<tr>
<td>Apartment Housing (full year)</td>
<td>34.00</td>
</tr>
<tr>
<td>Fall/Winter Dorm</td>
<td>14.00</td>
</tr>
<tr>
<td>Brown-Munson Fall/Winter</td>
<td>60.00</td>
</tr>
<tr>
<td>Brown-Munson Spring/Summer</td>
<td>30.00</td>
</tr>
<tr>
<td>Spring or Summer Dorm</td>
<td>4.00</td>
</tr>
<tr>
<td>Graduate Assistant:</td>
<td></td>
</tr>
<tr>
<td>Fall or Winter</td>
<td>16.00</td>
</tr>
<tr>
<td>Spring/Summer</td>
<td>16.00</td>
</tr>
</tbody>
</table>

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: (1989-90 fee schedule)

Music majors: $60 per semester 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: $90 per semester for one-hour lesson, $45 per semester for half-hour lesson.

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 209</td>
<td>The Art and Science of Nursing I Lab (3)</td>
<td>$45</td>
</tr>
<tr>
<td>NUR 251</td>
<td>The Art and Science of Nursing II Lab (3)</td>
<td>$45</td>
</tr>
<tr>
<td>NUR 305</td>
<td>Nursing Care of Childbearing Families Lab (3)</td>
<td>$45</td>
</tr>
<tr>
<td>NUR 307</td>
<td>Nursing Care of Childbearing Families Lab (3)</td>
<td>$45</td>
</tr>
<tr>
<td>NUR 331</td>
<td>Adult Health Nursing I Lab (3)</td>
<td>$45</td>
</tr>
</tbody>
</table>
NUR 341 Concepts of Professional Practice II Clinical Laboratory (3) ........................................... $45
NUR 351 Psychiatric/Mental Health Nursing Lab (3) ......... $45
NUR 405 Adult Health Nursing II Lab (4) ....................... $60
NUR 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

(University charges are set by action of the Board of Regents, and are due in accordance with University payment plan, and may be changed without notice.)

<table>
<thead>
<tr>
<th>Item Due</th>
<th>1992-93 Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition for 15 hours Michigan resident</td>
<td>$1,147.50</td>
</tr>
<tr>
<td>Out-of-state resident</td>
<td>$2,940.00</td>
</tr>
<tr>
<td>Registration fee—All students (Spring/Summer)</td>
<td>$40.00</td>
</tr>
<tr>
<td>Student Government fee—All students</td>
<td>$2.00</td>
</tr>
<tr>
<td>Health care fee—$1.85 per credit hour</td>
<td>$27.75</td>
</tr>
<tr>
<td>Student activity/facility fee</td>
<td></td>
</tr>
<tr>
<td>Music fee—Music majors</td>
<td>$60.00</td>
</tr>
<tr>
<td>Other students taking an applied music lesson</td>
<td>$30-$60.00</td>
</tr>
<tr>
<td>Residence hall room and board (double room with 20-meal plan)</td>
<td>$1,925.00</td>
</tr>
</tbody>
</table>

### 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 13 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 .................................................. $2,500
- Books and academic supplies ................................ $500
- Residence hall room and board ................................ $4,100
- Total direct educational costs ................................ $7,100
- 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 projected 1994-95 costs):

- On campus student .................................................. $8,300
- Commuter student .................................................. $6,300
- Off campus student .................................................. $7,800

The above budgets are based on Financial Aid average costs for 1993-94 with projected increases for 1994-95.

### FINANCIAL AID

Four types of financial aid are available to Eastern Michigan University undergraduate students: academic scholarships, grants, work, and loans. All financial aid programs including federal, state, university, and private sources are administered by the Office of Financial Aid located on the fourth floor of Pierce Hall. During the 1992-93 academic year, more than 10,000 students received approximately $36.7 million in financial assistance.

Scholarships and grants: Awards in these two categories range from $200 to $6,400 per academic year and may pay tuition, fees, room, board, books, transportation, and miscellaneous costs, depending on the type of the award and the amount. Scholarships are generally based on academic achievement; grants are generally based on financial need as determined by the federally approved formula.

Work and Loans: Awards in these two categories range from $500 to $5,500 per academic year and may pay tuition, fees, room, board, books, transportation, and miscellaneous costs. These awards are generally based on financial need as determined by the federally approved formula. All students (regardless of income) are eligible to borrow through the unsubsidized Federal Stafford Loan program. Independent students may borrow through the Federal Supplemental Loan program, and parents of dependent college students may borrow on behalf of their children through the Federal Parent Loan Program.

### APPLICATION FORMS

**Federal and State Need-Based Aid**

The Free Application for Federal Student Aid is available in high school guidance counselors' offices and the Office of Financial Aid. The free application requires 4-6 weeks for processing.

**Academic Scholarships and University Awards**

Applications are included on the Admissions application for new students and transfer students. Continuing students may apply annually (from late October through January) for academic scholarships and awards through the Office of Financial Aid.

### NEED-BASED FINANCIAL AID

All federally funded student financial aid programs require the student to sign the following statements: Anti-Drug Statement, Statement of Educational Purpose, and Selective Service Registration. Students who are not making satisfactory progress toward completing a degree may be ineligible for aid. Students who are in default on a student loan or owe a refund from student financial aid received are also not eligible to participate in these federally funded student aid programs.

**Federal Pell Grants:** These federally funded grants are available to undergraduate students who are enrolled and have demonstrated financial need. Students must be U.S. citizens or permanent U.S. residents. Students must apply through a federally approved need analysis system. Eligible students must submit an approved Student Aid Report to the Office of Financial Aid to receive funds. Awards range from $400 to $2,300 per year, based on enrollment status.

**Federal Supplemental Grants:** These federally funded grants are available to undergraduate students who are enrolled on at least a half-time basis and demonstrate financial need. Students must apply through the federally approved need analysis system. Priority is given to students who receive a Federal Pell Grant. Awards range from $100 to $2,000 per year.

**University Grants:** These grants are funded by Eastern Michigan University and are available to undergraduate students who...
demonstrate need or have special circumstances. These funds are made available to students when Federal Supplemental Grant funds are not sufficient to meet the needs of EMU students. Award amounts vary depending on the student's situation and funding levels.

Eastern Opportunity Grants: These grants are funded by Eastern Michigan University and are available to undergraduate students who demonstrate need and are enrolled on at least a half-time basis. Priority is given to students enrolled in the Summer Incentive Program. Award amounts vary depending on the student's situation and funding levels.

Federal Work Study: This federally funded work program is available to undergraduate and graduate students who demonstrate need. Students must be enrolled on at least a half-time basis. Employment is available on the college campus or in not-for-profit agencies off campus. Eligible students may work up to 20 hours per week during the academic year. Limited full-time work study is available during the summer term. The hourly rate of pay for a work study position is determined by the skills required for the job and the student's experience. Federal law requires at least minimum wage.

Federal Stafford Loans: This federally approved loan program provides funds through banks, savings and loan institutions, and credit unions to undergraduate and graduate students who are enrolled on at least a half-time basis. Undergraduate students may borrow up to $2,625 per year for the freshman year; $3,500 for the sophomore year; and $5,500 per year for the next three years of undergraduate study up to a maximum of $23,000. For graduate and professional study the aggregate limit on borrowing is $65,500. Student borrowers must begin repaying the loan six months after graduation, withdrawal, or dropping below half-time enrollment status. Interest is capped at 9 percent and is set annually on July 1. The loan amount is based on the grade level, previous student loan indebtedness, and financial need.

Federal Perkins Loans: This loan program is federally subsidized. A Perkins loan carries a low-interest rate and is a long-term loan available to undergraduate and graduate students who demonstrate need. Students must be enrolled on at least a half-time basis. Undergraduate students may borrow up to a cumulative maximum of $15,000. The amount of the loan depends on the student's need, previous student loan indebtedness, and enrollment status. Repayment of the loan begins 9 months after graduation, withdrawal, or dropping below half-time status. Student borrowers have up to 10 years to repay the loan with 5 percent simple interest. Opportunities for deferment or forgiveness of the student loan are available. Contact the Student Loans Office in Pioneer Hall for specific information.

EMU Scholarships/Awards
Not based on financial need

Eastern Michigan University offers scholarships and awards not based on financial need to recognize academic excellence and special talents. All undergraduate students are encouraged to apply annually. New incoming freshmen and transfer students may apply for scholarship consideration on the admissions application. Some scholarships are available for part-time study. Scholarships require different GPAs, depending on the type and amount of the award. Scholarships may be credited to the tuition and/or residence hall room and board charges. Students must reapply annually for available scholarships. Applications are available the last week in October and due by the third week of January. Contact the Office of Financial Aid for specific dates.

Presidential Scholarships: This scholarship program provides 10 full-ride academic awards valued at $32,000 ($7,300/year for four years). To compete for the Presidential Scholarship, a student must be a high school senior with a minimum 3.5 GPA and a 25 ACT/1050 SAT score. Students are invited to participate in a competitive examination on campus held in early December. The top 30 scorers from the examination are invited back to campus in January to participate in the written essay competition and personal interview. The scholarships are automatically renewed for up to eight full-time semesters as long as the student maintains a 3.5 GPA and completes a minimum of 15 credit hours per semester. Recipients must live in University residence halls their first two years.

Regents Housing Scholarships: This scholarship program provides an $8,000 award for four years ($2,000 per year). To be eligible for consideration, incoming freshmen and transfer students must have a minimum 3.5 GPA and a 25 ACT/1050 SAT score, compete in the Presidential Scholarship Competition, and score in the top 100. Some awards are available to freshmen and transfer students who do not compete in the Presidential Scholarship Competition and have a minimum 3.5 GPA. The scholarships are automatically renewed for up to eight full-time semesters as long as the student maintains a 3.5 GPA, completes a minimum of 15 credit hours per semester, and lives in University residence halls their freshman and sophomore years. Continuing upperclass students at Eastern may apply for a Regents Scholarship (no housing requirement) through the annual scholarship application process. Awards are competitive, based on number of applicants and available annual funding.

Recognition of Excellence Housing Scholarships: This scholarship program provides a $3,000 award for two years ($1,500 per year). To be eligible for consideration, incoming freshmen and transfer students must have a 3.3 GPA and a 25 ACT/1050 SAT minimum score. The award is automatically renewed for up to 4 semesters provided the student maintains a 3.3 GPA, completes 12 credit hours each semester, and lives in University residence halls their first and second years at EMU. Continuing upperclass students at Eastern may apply for the Recognition of Excellence (no housing requirement) annually for consideration. A minimum 3.3 GPA is required. Eligibility is competitive, based on number of applicants and available funds.

Departmental Endowment Awards: These awards are based on funding through endowed scholarships. Each academic department determines its eligible students. Students must generally have a 3.0 GPA to be considered and identify a major field of study. In some cases, students may also be required to audition, provide letters of recommendation, write an essay, and provide portfolios of work and transcripts. Students must reapply annually. Awards vary from $50 to $2,200 per year.

Campus Leader Awards: These awards are given for outstanding leadership activities at EMU. Students must have a minimum 2.5 GPA and are strongly encouraged to participate in EMU's Student Leadership Conference. Students must reapply annually.

Service Awards: These awards are given for outstanding service and talent in the departments of Communications and Theatre Arts and Music.

Agency/Outside Donor Scholarships: These programs are sponsored by groups external to the University and may include civic organizations, churches, synagogues, clubs, professional organizations, foundations, and corporations. Qualifications and eligibility vary considerably. Some specialized books listing scholarships are available through the Office of Financial Aid and on reserve at the University Library.

State Funded Financial Aid Programs

Michigan Competitive Scholarships: This state-funded scholarship program is based on a combination of competitive tests results
from ACT and financial need as determined by a federally approved needs analysis system. Students initially apply by taking the American College Test no later than October of their senior high school year and having the test results sent to the State Scholarship Program. The second step of the application process is to submit the Free Application for Federal Student Aid (FAFSA). Eligible students must have a qualifying ACT score and demonstrate financial need. Students may annually renew the scholarship by maintaining a 2.0 GPA and demonstrating continuing financial need.

Three additional programs are available to Michigan residents—Michigan Adult Part-Time Grant, Michigan Educational Opportunity Grant, and Michigan Work-Study. The basic requirements for these three programs are as follows: be enrolled at an approved public or private degree-granting Michigan college; demonstrate financial need for the funds; be a Michigan resident for at least 12 months; be a U.S. citizen or permanent resident; not be incarcerated in a correctional institution; not be enrolled in a program leading to a degree in Theology or Divinity; not be in default on a Michigan Guaranteed Student Loan or Michigan Auxiliary Loan; and be making satisfactory academic progress, as defined by the school.

To apply for the state need-based aid programs, students must apply through a federally approved needs analysis system.

Michigan Adult Part-Time Grant is need-based gift aid money available to undergraduates who enroll on a part-time basis. In addition to meeting the specific requirements listed above, students must qualify as self-supporting according to current federal criteria (be out of high school for at least two years, and be a part-time student). Grants of up to $600 per year are available for not more than two years of study.

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

Michigan Work-Study Program is a 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. MWSP awards range from $800 to $3,000 per year.

OTHER PROGRAMS
(Not based on financial need)

Michigan Indian Tuition Waiver Program is available to Native American students who are certified to have at least 25 percent native American blood. Eligible students may receive tuition payments for both an undergraduate and graduate degree. Students may be enrolled either part-time or full-time. Certification of eligibility and additional information may be obtained from the Michigan Indian Commission, 611 West Ottawa Street, Lansing, MI 48913, or contact Carolyn Kiogima at (517) 373-0654.

Michigan Veterans Trust Fund (Public Act 245) is a program available to children of disabled or deceased veterans (death/disability must have been as a result of wartime service). Eligible students may receive tuition payment for undergraduate or graduate study, must maintain a minimum 2.25 GPA, and make satisfactory progress. Students are eligible from ages 16 to 22 or for 36 months of full-time education, whichever comes first. Students may receive an extension of tuition payments beyond their 22nd birthday if their education was interrupted for at least one month due to military service or illness. Certification of eligibility and additional information may be obtained from the Michigan Veterans Trust Fund Board of Directors, P.O. Box 30026, 611 West Ottawa Street, Lansing, MI 48909, or call at (517) 373-3130.

Michigan Veterans Emergency Loan is available to Michigan veterans to cover due or past due expenses such as room and board, car repairs, and utility bills. Loans cannot be made for direct educational expenses such as tuition and books. Loan amounts cannot exceed $600, are interest free, and must be repaid in 180 days (six months). Contact the Michigan Veterans Trust Fund Board of Trustees, Ottawa Street Building, North Tower—Third Floor, P.O. Box 30026, Lansing, MI 48909 for additional information, applications, and eligibility requirements.

OTHER ARMED FORCES PROGRAMS

Army ROTC Scholarship Programs offer financial assistance to outstanding young men and women interested in completing the ROTC program and pursuing the Army as a career. Students must be citizens of the United States and meet the criteria specified under provisions of Public Law 88-647. For further information, contact EMU’s Military Science Department, 18 Roosevelt Hall.

The four-year program is open on a selective basis to high school seniors who apply and intend to pursue ROTC at the University. One- to three-year scholarships are reserved for students enrolled in the EMU campus ROTC program, and a two-year scholarship program for transfer students is administered by a faculty board. All provide full tuition, textbooks, laboratory fees, and a $100 per month stipend while the scholarships are in effect.

Air Force ROTC Scholarships are offered by the Air Force on a competitive basis to students interested in completing the AFROTC program and entering the Air Force as a commissioned officer. Two, three, and four-year scholarships are available. Scholarships pay full tuition and fees, a book allowance, and a $100 per month stipend during the academic school year. EMU students receive AFROTC training on the University of Michigan campus. For information, call the AFROTC recruiting office at (313) 474-4093.

Veterans Benefits are administered under the new G.I. Bill by EMU’s Veterans Services Office, 202 Goodison Hall. The applicant must furnish a Certificate of Eligibility (if available) at or prior to the start of classes. Students receiving benefits and not obtaining a satisfactory grade point average will be cut off from further certification for such benefits at a point no later than one consecutive semester after the student initially fails to maintain satisfactory academic progress.

Veterans must complete necessary registration with the University and pay full tuition and fees. Subsequent procedures will be explained at the Veterans Services Office.

UNIVERSITY SHORT TERM LOANS

Emergency Educational Expense Loans are 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. Loans are made available from memorials to groups or individuals. Applications may be obtained at the Student Loan Accounting Office, Pierce Hall. Loans are processed within 24 hours.

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

Adult Tuition Loans are 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 applicants for Emergency Educational Expense Loans must meet.

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/session. The University calendar is printed at the front of this book.

Evening courses and continuing education courses permit scheduling options within each semester/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/session. In the fall and winter semesters, the recommended full-time course load is 15 to 16 hours (15 with student teaching). In the seven and one-half week spring and summer sessions, it is six to eight hours and in the six-week summer session, five to six hours. Full-time enrollment for the fall and winter semesters is 12 hours or more. Full-time enrollment for the spring and summer semesters is six hours or more.

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 semester hours are included in the total course load.

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 a 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 of registered courses is permitted for the student who wishes to hear the subject matter presented but does not desire to obtain credit for the course. The student must register for the class, obtain a permission to audit card from registration, receive the approval of the head of the department offering the course, turn in the audit card, and pay the required tuition and fee as if for a credit course. Shifting from credit to audit or from audit to credit is not permitted after the last day for program adjustments for that specific semester.

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, 301-303 King Hall.
Credits are determined by the units of work completed. A semester 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 semester hours by multiplying by two-thirds.

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

<table>
<thead>
<tr>
<th>Class</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>0-24</td>
</tr>
<tr>
<td>Sophomore</td>
<td>25-55</td>
</tr>
<tr>
<td>Junior</td>
<td>56-84</td>
</tr>
<tr>
<td>Senior</td>
<td>85 or over</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Academic Level*</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-199</td>
<td>Introductory</td>
</tr>
<tr>
<td>200-299</td>
<td>Intermediate</td>
</tr>
<tr>
<td>300-499</td>
<td>Advanced</td>
</tr>
<tr>
<td>500-599</td>
<td>Advanced</td>
</tr>
<tr>
<td>600-699</td>
<td>Advanced</td>
</tr>
<tr>
<td>700-799</td>
<td>Advanced</td>
</tr>
<tr>
<td>800-899</td>
<td>Advanced</td>
</tr>
<tr>
<td>900-999</td>
<td>Advanced</td>
</tr>
</tbody>
</table>

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 acquire 76 hours or more of undergraduate credit, have a cumulative grade point average of 2.50 or better, and receive written permission from the Graduate School. The maximum number of graduate hours that an advanced undergraduate can take is 15. Courses numbered in the 600s and 700s are exclusively for graduate students.

*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.

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, unless waived by instructor's permission, may be 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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Significance</th>
<th>Grade points per semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Exceptionally high order</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>Above average</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>Distinctly above the average</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>Average</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>Below Average</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>Distinctly below the average</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>Below Average</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>Distinctly below the average</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>Below Average</td>
<td>1.0</td>
</tr>
<tr>
<td>D-</td>
<td>Unsatisfactory (denoting failure)</td>
<td>0.7</td>
</tr>
<tr>
<td>E</td>
<td>Unsatisfactory (denoting failure)</td>
<td>0.0</td>
</tr>
<tr>
<td>CR</td>
<td>Passing grade in credit/no credit courses</td>
<td>0.0</td>
</tr>
<tr>
<td>NC</td>
<td>Failing grade in credit/no credit courses</td>
<td>0.0</td>
</tr>
<tr>
<td>S</td>
<td>Passing grade in pass/fail elections and credit for certification in student teaching courses</td>
<td>0.0</td>
</tr>
<tr>
<td>P</td>
<td>Passing grade in student teaching but not at level sufficient for certification</td>
<td>0.0</td>
</tr>
<tr>
<td>U</td>
<td>Failing grade in pass/fail and in student teaching elections</td>
<td>0.0</td>
</tr>
</tbody>
</table>

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 "I" 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." Departments 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 basic studies 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 program adjustment.
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 report 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 included 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 Examination 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 nonattendance 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 nation may be utilized to determine the student's acceptability.
   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, Registration, and Advising.

   Grade reports are mailed by the University to the home 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 Academic Records and Certification Office, Room 302, 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 that 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 semester hours taken which 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 or transfer 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.

   **GRADE GRIEVANCE PROCEDURE**

   The grade grievance procedure provides each student with the opportunity to appeal formally a final grade in a course because he or she believes that the grade has been awarded capriciously or unfairly. This procedure is not intended to handle disputes that may arise about the grading of individual exams or assignments during the semester. When such disputes arise, the student should contact the instructor immediately, rather than waiting until the end of the
Each grade grievance submitted according to this procedure must be an individual action by an individual student, and class action grievances by one student on behalf of several students or an entire class are not permitted.

**STEP I**

If a student wishes to appeal a final grade, the student must contact the instructor within five (5) working days after the start of the next semester; i.e., the semester following the one in which the disputed grade was given (see General Notes for the spring-summer policy). If the instructor is teaching on campus the next semester, but is temporarily unavailable or simply cannot be reached during this five-day period, then the student should deliver a written request for an appointment with him/her, stating the reason, to the department head no later than the final day of the five (5) day period. With the aid of the department head in scheduling an appointment, the instructor and student must then meet as soon as possible and discuss the disputed grade privately. In the event that the department head has difficulty in assisting the student in scheduling the appointment, a detailed written record of communication or attempts to communicate between the department head and the instructor will be maintained by the department head. Whenever possible, conflicts over grades should be resolved informally between the instructor and the student as a result of this Step I discussion.

If the instructor has left the University permanently or is not available for a period of sixty (60) days or more (e.g., if the instructor is away on sabbatical leave, medical leave, or is in his/her off semester on a Plan C appointment), then the department head shall act in his/her behalf and make a decision either in support of or against the grievance. In making this decision, the department head shall review all available grade records, discuss the matter with the student, and with the written consent of the student, request and evaluate a written statement submitted within ten (10) working days by the instructor concerning the disputed grade. The department head cannot act in this manner on behalf of the instructor during the spring-summer period simply because the instructor is not teaching during either the spring or summer session, unless the disputed grade affects the student’s plans to graduate that year.

**STEP II**

If the grade dispute is not resolved in Step I to the student’s satisfaction and he or she still believes that the grievance has merit based on the facts of the case, the student has the right to file a formal written grievance to the department head who will forward it immediately to the Department Grade Grievance Committee. Guidelines for filing a formal grievance are as follows:

1. A grievance must be based on evidence that the instructor has been capricious and/or unfair in awarding a grade. The written grievance must describe specifically the perceived capricious or unfair action of the instructor. The student also should present all other evidence or documentation in support of his or her allegations. Disagreement with an instructor’s judgment in and of itself is not a basis for a grievance, nor is disagreement with an instructor’s grading standards, if such standards have been described in advance for the class and have been applied fairly to all students in the class.

2. A grievance must be filed within fifteen (15) working days after the start of the next semester following the one in which the disputed grade was given.

Within ten (10) working days after receipt of the written grievance, the department head must schedule a hearing before the Department Grade Grievance Committee. The department head cannot simply make a personal judgment that the grievance is without merit, and thus refuse to give it to the Department Grade Grievance Committee. However, after scheduling the hearing, the department head may request a closed three-person meeting in his/her office with just the instructor and the student, to discuss informally the disputed grade one final time. If either the instructor or the student refuses to attend such a meeting, the department head shall act only as a facilitator or mediator. His/her role is restricted solely to promoting further discussion, not to imposing his/her judgment and/or making a decision in the case. If the dispute is resolved in this meeting, the written grievance shall be withdrawn and the scheduled hearing cancelled. If the dispute is not resolved, the grievance hearing is then held as previously scheduled. In such cases, the department head shall not communicate his/her opinions/judgments regarding the grievance and/or the discussions in the closed meeting to the members of the Department Grade Grievance Committee.

The Department Grade Grievance Committee shall be composed of three (3) faculty members and two (2) students. The faculty members shall be selected by appropriate department procedures. The students shall be selected from the list of representatives designated annually (no later than October 15 each year) by Student Government for that particular college. It is preferred that one student on the committee be a graduate student in those departments that offer graduate courses. In graduate student grievances, at least one of the student committee members must be a graduate student.

The student grievant may, however, request in advance in writing that the two (2) student be excused and that his or her grievance be heard only by the three (3) faculty members. The committee shall conduct a hearing according to the following guidelines:

1. Prior to the hearing, any written information of support for either the student or the instructor should be distributed to committee members.

2. A detailed record shall be kept of the hearing, preferably a taped sound recording. If a written record is kept, that record should be signed by the Grievance Committee, asserting that the written record is a true record of the hearing proceedings. If a tape serves as the hearing record, the Grievance Committee shall sign a statement attesting that the tape is the true record of the hearing proceedings.

Written or recorded records of any Step II grievance shall be kept on file in the college dean’s office and copies shall be provided, upon request, to the student who has filed the grade grievance or the faculty member against whom the grievance was filed. Costs associated with duplicating grade grievance records shall be borne by the individual(s) requesting copies.

3. The hearing shall be open unless the student or instructor requests a closed hearing. This request should be conveyed in writing to the department head prior to the hearing.

4. Both the student and instructor shall be permitted an adviser. Advisers must be members of the University community, i.e., students or full-time faculty or staff members.

5. The department grade grievance chair shall begin the hearing by beginning the tape recorder (or announcing the name of the person who will be taking minutes) and reviewing the guidelines and procedures under which the hearing shall be conducted.
The committee chair will then announce, “This Step Level II Grade Grievance Hearing is being held on (date). (Name of student) is grieving the grade of (grade) received during the (semester) in (class prefix, number, and section I.D. taught by (instructor). The following committee members are in attendance today: (members give their names).”

6. In order, the student and the instructor will present their cases. Both the student and the instructor may call witnesses, and the student, instructor, adviser(s), and committee members all have the right to question any witnesses that are called. The student and the instructor should be asked for brief closing statements.

7. The chair will then close the hearing with “This Step Level II Grade Grievance Hearing is now concluded. The committee will meet in executive session and will present its findings, in writing, to the department head within (5) working days. The written decision/recommendations must contain a numerical report of the vote and must be signed by the members of the committee. The department head will notify the student and the instructor of this committee’s decision/recommendation.”

8. Either the student or the instructor may appeal the decision/recommendations of the Department Grade Grievance Committee to the University Grade Grievance Committee under the conditions listed below. This appeal must be filed within five (5) working days of receipt of the decision.

**STEP III**

Either the instructor or the student grievant may submit a written appeal of the prior decision at Step II by the Department Grade Grievance Committee within five (5) working days of written receipt of that decision, if one of the following conditions is met:

1. The Office of the Provost determines that there is evidence that established procedures for Step II were violated; or
2. There was at least one dissenting vote at the Step II level; or
3. New evidence or new witnesses not previously considered or heard at Step II become available.

In the absence of 1, or 2, or 3 above, simple disagreement with the decision rendered at Step II is not sufficient basis for an appeal. In other words, there is no automatic right of appeal in every case requiring that the University Grade Grievance Committee reconsider the entire grievance case. If the appeal is based on new evidence or new witnesses, the written appeal statement must explain precisely how this evidence or testimony relates directly to the alleged unfair or capricious awarding of the disputed grade. If said evidence or witnesses had been available prior to the Step II hearing, the hearing shall be remanded back to the Step II departmental committee. Only newly discovered evidence and/or witnesses may be introduced at the Step III hearing level (it shall be the responsibility of the petitioner to demonstrate that the evidence and/or witnesses were not available at Step II).

The appeal shall be submitted to the associate provost, (or a substitute designated by the provost) with a copy to the dean of the appropriate college. The University Grade Grievance Committee shall be chaired by the associate provost and shall have the following additional members: the dean of the involved college or his/her designee; two (2) faculty members, one of whom is from the involved college, but not from the department in which the grievance originated; and one (1) student, appointed by Student Government. The two faculty members shall be selected by the associate provost from an available pool of nominees representing all the colleges.

The University Grade Grievance Committee shall review all written documents which were available to the Department Grade Grievance Committee, the written or taped recording of the Step II hearing, and the final report and decision of the Step II Committee. The University Grade Grievance Committee may reconvene the participants in the Step II hearing to answer questions, if desired.

Within twenty (20) working days of the receipt of the appeal, the University Grade Grievance Committee shall issue a written or tape recording of the Step III decision to both the instructor and the student. This decision shall be final; no further appeal is possible.

**RECORDS**

When the Grade Grievance Procedure results in an instructor’s grade being changed without his or her agreement, then all University records containing that grade in which the name of the instructor appears shall be identified by an asterisk (*). On these records, the asterisk will be footnoted with the following statement: “This grade is a result of an appeal procedure.” On those records in which the instructor’s name does not appear, the grade will not be asterisked, nor will there be any other indication that the original grade was changed.

**GENERAL NOTES**

1. The time limits/deadlines for submitting grievances/appeals, holding meetings, and making decisions are to be followed by all parties. However, extensions of the time limits may be requested in writing by any of the involved parties. Such requests must originate prior to the expiration of the stated time limit. The dean of the involved college will make the decision to approve or to deny each request for a time limit extension at Step I or Step II. Decisions regarding Step III time limit extensions will be made by the Office of the Provost.

2. Each academic department shall select the faculty members for the Department Grade Grievance Committee at the beginning of the academic year in September. The committee will hear all grade grievances during the next 12 months. Substitute members shall be selected to replace any committee member who is involved in a grade grievance. Also, substitute members shall be selected to replace any faculty committee member who is unavailable for an extended period of time (e.g., spring and/or summer).

3. Each college shall select two (2) faculty members plus one alternate who will be available over a 12-month period for assignment to the University Grade Grievance Committee. These selections shall be made by the appropriate college-level faculty advisory council/committee at the beginning of the academic year in September. Unlike the Department Grade Grievance Committee, this Step III University Grade Grievance Committee may of necessity have a different membership for each grievance.

4. Grievances relating to grades awarded for the winter semester ending in April shall normally be pursued the next fall, measuring all stated deadlines with respect to the start of the fall semester in September. However, if the instructor is teaching on campus during the spring or summer session and the student is enrolled on campus during the same session, then with their mutual agreement, the grievance can be pursued during the spring or summer. However, should either the instructor or the student prefer to wait, then action of the grievance will be postponed until the fall semester. The only exception in which the grievance shall be pursued during the spring or summer session without the consent of the instructor who is teaching on campus is for any case in which the disputed grade affects the student’s plans to graduate that year.
In such cases, if the instructor is unwilling to participate, the department head may act on his/her behalf.

5. Throughout this procedure, the title department head shall be interpreted to include program directors or program coordinators for appropriate academic units in which there is no administrator with the title of department head.

6. Students are encouraged to seek advice from the REACT office.

**ACADEMIC RETENTION AND DISMISSAL**

Academic probation occurs when the student's cumulative grade point average at EMU is less than 2.00 (a "C" average). Placement on academic probation is automatic and applies even if the student states that official notification of probation has not been received from the University.

A student's probationary status results from his/her academic record for the semester just completed, viewed in relation to the student's total Eastern Michigan University academic record.

University action in placing a student on academic probation should make the student aware that satisfactory progress is not being made toward completing degree requirements. The student also should realize the need to take steps, such as seeking additional help and advice, to improve the quality of his/her academic performance.

For this reason, the Academic Advising Center notifies students in writing that within the first 30 days of the semester—preferably within the first week of the semester—they are required to have a conference with an assigned academic adviser to review the student's program of classes and individual plans made for that semester. The adviser may require further conferences, restrict the student's academic load or stipulate special conditions to help ensure the student's satisfactory progress toward graduation.

While on academic probation, a student must earn a semester grade point average of at least 2.0 (a "C" average) in each succeeding period of his/her enrollment (including spring and summer sessions) until probation is removed. Probation is removed when the student's cumulative grade point average at EMU is at least 2.0.

The College of Education restricts its students placed on academic probation from registering for, remaining in, or receiving credit for professional education courses offered by the following departments or divisions: Teacher Education, Student Teaching, Guidance and Counseling, Special Education, and methods classes listed by cross-reference in these departments. The restrictions do not include these introductory courses: EDP 106 Introduction to University Studies, G&C 100 Career Exploration and Decision-Making, SGN 271 Introduction to Speech Pathology, and SGN 251 Education of Exceptional Children.

No credit may be earned in any graduate level course (500 level) on or off campus while an undergraduate student is on academic probation. A 2.5 GPA is required to enroll.

Academic dismissal may result when students on probation fail to meet the required grade point average of 2.0 in each enrollment period.

Students not on academic probation whose cumulative grade point deficit at the end of any enrollment period is 13 or more may be dismissed for academic reasons.

Exceptions to the above policies may be made, provided the student submits an appeal to the Admission Review/Academic Standards Committee, under the following conditions:

1. A student on academic probation who earns less than the required grade point average of 2.0 (a "C" average) in any semester or session of enrollment may be retained on academic probation provided that is the recommended judgment of the Admissions Review/Academic Standards Committee.

2. A freshman may, with the approval of the Admissions Review/Academic Standards Committee, be permitted two full semesters of enrollment even though the grade point deficit is greater than 13 during the first semester. This is not automatic.

3. A student on academic probation, whose grades for the current enrollment period include an "I," will be retained only at the discretion of the Admissions Review/Academic Standards Committee. An academic dismissal remains in effect pending the outcome of any appeal.

Readmission of a student dismissed from the University cannot take place until two successive enrollment periods (including one full semester) have elapsed unless unusual or extenuating circumstances exist. This waiting period is designed to help the student gain the needed maturity for pursuing a degree through work experience, travel or course work at other accredited college institutions.

Readmission is not automatic, but requires the student to seek a readmission interview with an adviser in the Academic Advising Center to determine if the student is ready to return.

Students will be required to support their eligibility for readmission through:

1. Documentation of their activities during the dismissal period that relates to the reasons for dismissal and that supports their readiness to resume their academic career at Eastern Michigan University.

2. Earning a minimum grade point average of 2.0 ("C" average) if courses are taken at other accredited collegiate institutions. (See restrictions on repeating courses.)

A student who is readmitted and is dismissed a second time normally will not be readmitted again.

To apply for readmission a student must:

1. Obtain a petition for readmission form in the Academic Advising Center, 301 Pierce Hall; complete the form and return it by the deadline established on the petition.

2. If any courses have been completed at another collegiate institution since leaving EMU, transcripts of such work must be included with the petition for readmission. If a student is enrolled in such courses at the time of petition, the transcripts must be received in the Academic Advising Center no later than the first day of classes in the session for which the student first returns. The grade point average for all such work must be at least 2.0 ("C" average) or readmission will be cancelled.

3. Students who have been discharged from active military duty must include a copy of their separation record (DD Form 214) with the petition for readmission. If students apply for readmission prior to discharge, they may be readmitted conditionally pending receipt of their separation records.

Veterans whose academic records prior to entry into the U.S. Armed Forces do not qualify them for readmission are placed on probation if desiring to renew their education. Subsequent to readmission, the veteran is subject to current University dismissal-probation procedures.

**WITHDRAWALS**

**Withdrawals from Individual classes**

Withdrawals from class are permitted students according to the following stipulations:

*First three weeks:* Any change in the student's program occurring during this period is accomplished through the Registration Office as a part of the registration adjustment process. Such changes are not recorded in the student's permanent record.
*Fourth through tenth week: All student-initiated withdrawals are accepted automatically and recorded as "W." A withdrawal form must be submitted to the Registration Office, 303 Pierce Hall. Withdrawals initiated during this period are not eligible for tuition adjustment. (See Tuition and Fee Information and Appeal Process.)

*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

Withdrawal from the University and all classes currently being taken is accorded students who apply in person at the Registration Office, or by mailing a written request to the Registration Office. Any tuition/fee adjustment responding to written communication is based on the postmark date (see also Tuition and Fees).

The policy for withdrawal from the University is:
1. Students who drop during the first seven calendar days of the semester (three calendar days for spring/summer) will receive a 100 percent tuition credit adjustment and no grades will be posted. An adjustment fee of $10 is charged.
2. Students who drop during the next 14 calendar days of the semester (the next four calendar days for spring/summer) will receive a 50 percent tuition credit adjustment and no grades will be posted.
3. Students who drop after 21 calendar days of the semester (seven for spring/summer) through the day prior to the first day of University final examinations will receive no tuition credit adjustment and grades of "W" will be posted.

4. No withdrawal will take place after the official University final examination period has begun.

The EMU Class Schedule Book published each term gives exact dates for tuition credit adjustment and withdrawal deadlines.

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, fourth floor, Goodison Hall.
### COURSE PREFIXES

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

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<thead>
<tr>
<th>Academic Affairs Division</th>
<th>PREFIX</th>
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<tr>
<td>Academic Affairs Division</td>
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<td>Military Science</td>
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**Graduation Requirements**

To graduate from Eastern Michigan University, students must fulfill basic studies requirements, satisfy major and minor requirements, and earn a bachelor of science or bachelor of arts degree or one of the baccalaureate degrees pertinent to their fields of study as authorized by this University (see below).

The minimum number of credit hours required for graduation is 124. To earn a degree, students must complete the basic studies program, complete a major of 30 to 36 hours and a minor of 20 to 24 hours, as specified in their fields of study or a self-contained program of 50-60 hours, and electives to equal the minimum total of 124 hours.

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 the Registrar 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 also are 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 Industrial 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 Education, 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 post-master's program called Certificate of Advanced Study in Curriculum and Instruction (CASC) and a doctorate in educational leadership. All are listed in the Graduate Catalog.

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

These subject group areas are:

- **Language and Literature (Group I)**
  - Ancient language and literature, modern language and literature, speech communication, library science, theatre arts.
- **Science and Mathematics (Group II)**
  - Astronomy, biology, botany, chemistry, science-oriented geography/geology (earth science), mathematics and computer science, physics, physiology, psychology, zoology.
- **Social Sciences (Group III)**
  - Anthropology, economics, social science-oriented geography, history, philosophy, political science, sociology.
- **Education (Group IV—Teacher Education only)**
  - Education (including methods courses and student teaching).
- **Fine Arts (Group V)**
  - Art, music.
- **Practical Arts (Group VI)**
  - Business administration; business education; health administration; human, environmental and consumer resources; industrial education; industrial technology; medical technology; military science; nursing education; occupational therapy; social work.
- **Physical Education and Health Education (Group VII)**
  - Dance, health education, military science, physical education, recreation.

**Basic Studies Program**

**History**

In February 1985, the provost commissioned a Basic Studies Review Committee and charged the members "with conducting a comprehensive re-examination 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 departmental, 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.

**Rationale**

The basic studies 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 basic studies courses are intended as more than introductions to fields of study; they also should develop your capacity for independent thought. The basic studies 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. Symbolic 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 (*).
A course in one of the following areas:

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 non-verbal 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.
   ENG 120 Basic English Composition
   You must enroll in this course in your first semester if your ACT score is below 19 on the enhanced ACT (or below 17 on the old ACT) or your SAT score is 400 or lower.
   When you have completed ENG 120, you must then complete ENG 121.
   ENG 121 English Composition
   All students must complete ENG 121 in order to satisfy this requirement. Unusually competent students are eligible for a waiver from this requirement if they have a score of 550 or above on the SAT or 22 or above on the English section of the enhanced ACT (or 25 on the old ACT).
   International students may substitute ESL 412 with permission of the Foreign Languages and Bilingual Studies department.

2. A course in speech communication
   Complete one of the following courses: CTA 121 Fundamentals of Speech (2 sem hrs.)
   CTA 124 Fundamentals of Speech (3 sem hrs.)
   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: ANT 200 Writing for Anthropology
      ENG 225 Intermediate English Composition
      ENG 324 Principles of Technical Communication
      ENG 227 Writing about Literature
      ENG 326 Research Writing
   
   3b. An upper level course in speech communication
      Complete one of the following courses: CTA 224 Public Speaking
      CTA 225 Listening Behavior
      CTA 226 Non-Verbal Communication
      CTA 227 Interpersonal Communication
      *CTA 374 Intercultural Communication
      *CTA 375 Interracial/Intercultural Communication

   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):
      LAT 121/122 Beginning Latin
      GRK 121/122 Beginning Ancient Greek
      FRN 121/122 Beginning French
      FRN 233/234 Intermediate French Conversation, Composition, and Grammar
      GER 121/122 Beginning German
      GER 233/234 Intermediate German Conversation, Composition, and Grammar
      JPN 121/122 Beginning Japanese
      JPN 211/212 Intermediate Japanese
      SPN 121/122 Beginning Spanish
      SPN 201/202 Intermediate Spanish

4. A course in mathematical reasoning
   Complete one of the following courses:
   MTH 109 Functional Mathematics II
   MTH 118 Mathematical Analysis for Social Sciences I
   MTH 119 Mathematical Analysis for Social Sciences II
   MTH 120 Calculus I
   MTH 121 Calculus II
   MTH 122 Elementary Linear Algebra
   MTH 150 Mathematical Reasoning
   MTH 270 Elementary Statistics
   MTH 341 College Geometry
   SOC 250 Social Statistics I

   Note: Students are entitled to a waiver of this requirement if they have submitted a score of 22 or above on the mathematics portion of the enhanced ACT or a score of 500 or above on 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:
   BE 201 Microcomputers for Business Applications
   CSC 136 Computers for the Non-Specialist
   CSC 137 Introduction to FORTRAN Programming
   CSC 138 Computer Science I
   CSC 237 Computer Programming and Numeric Methods
   HHS 226 Computers for Health and Human Services
   IT 105 Computer Applications for Industry
   IDT 201 Microcomputer Applications in Technology
   IS 215 End-User Computing


A course in physical science.

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

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

Complete one of the following courses:

- PHY 100 Science for Elementary Teachers
- PHY 110 Physical Science
- PHY 221 Mechanics, Sound, and Heat
- PHY 223 Mechanics, Sound, and Heat
- CHM 105 Survey of Chemistry
- CHM 115 Chemistry and Society (no laboratory)
- CHM 115-116 Chemistry and Society
- CHM 119 Fundamentals of Chemistry
- CHM 120 Fundamentals of Organic and Biochemistry
- CHM 121-122 General Chemistry I

b. 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:

- AST 203 Exploration of the Universe (no laboratory)
- AST 203-204 Exploration of the Universe
- AST 205 Principles of Astronomy (no laboratory)
- AST 204-205 Principles of Astronomy
- GES 108 Earth Science
- GLG 120 The Fossil Record (no laboratory)
- GLG 160 Physical Geology

2. A course in life science

Complete one of the following courses.

- BIO 105 Biology and the Human Species
- BOT 221 General Botany
- ESC 303 Science for the Elementary Teacher
- ZOO 222 General Zoology
- PSY 101 General Psychology (no laboratory)
- PSY 102 General Psychology

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

a. 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.

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

- CHM 101 Science for Elementary Teachers
- IT 150 Understanding Technology (no laboratory)
- IT 240 Science, Technology, and People (no laboratory)

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:

- PLS 112 American Government
- PLS 113 American Government Honors

2. A course in history

Complete one of the following courses:

- HIS 101 Western Civilization to 1648
- HIS 102 Western Civilization, 1648 to World War I
- HIS 103 Twentieth Century Civilization
- HIS 106 Asian and African Civilizations
- HIS 123 The United States to 1877
- HIS 124 The United States, 1877 to the Present
Note: Some students may be eligible to fulfill the requirements in history by pursuing options described in the Honors Courses in Basic Studies on page 30.

3. A course in anthropology, economics, geography, or sociology
   Complete one of the following courses:
   ANT 135 Introduction to Cultural Anthropology
   ECO 201 Principles of Economics I
   GEO 107 Introduction to Geography
   GEO 110 World Regions
   SOC 105 Introductory Sociology

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:
       HIS 102 (follows 101) Western Civilization, 1648 to World War I
       HIS 103 (follows 102) Twentieth Century Civilization
       HIS 124 (follows 123) The United States, 1877 to the Present

   4b. A second course in a two-course sequence in anthropology, economics, geography, or sociology
       Complete one of the following courses:
       ANT 140 (follows 135) Introduction to Prehistoric Anthropology
       ECO 202 (follows 201) Principles of Economics II
       GEO 111 (follows 110) Regions and Resources
       SOC 202 (follows 105) Social Problems

   4c. A course in cross-cultural or international studies
       Complete one of the following courses:
       *AAS 101 Introduction to African American Studies
       *ANT 205 Minority Women in the United States
       *ANT 233 Peoples and Cultures of Africa
       *ANT 236 Peoples and Cultures of Mexico
       *ANT 237 Indians of North America
       *ANT 245 Culture of Japan
       *ANT 214 Racial and Cultural Minorities
       *ANT 355 Anthropology of Women
       *ECO 321 Minority Workers in the Labor Market
       *ECO 328 Economics of Women
       *HIS 305 Indians of the United States
       *HIS 315 History of Black Americans
       *HIS 336 History of Women in the United States and Great Britain, 1800 to the Present
       *HIS 341 The Middle East, 1798 to Present
       *HIS 342 North Africa, 1798 to Present
       *HIS 348 Twentieth Century Africa
       *HIS 356 Latin America: National Period
       *HIS 375 Modern India
       *SOC 205 Minority Women in the United States
       *SOC 214 Racial and Cultural Minorities
       *SOC 344 Sociology of Sex Roles
       *WMS 200 Introduction to Women’s Studies

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 Basic Studies 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:
       LIT 100 The Reading of Literature
       LIT 101 The Reading of Literature: Fiction
       LIT 102 The Reading of Literature: Poetry
       LIT 103 The Reading of Literature: Drama

   1b. A course in Intermediate or advanced foreign language literature
       Complete one of the following courses:
       FRN 221/222 Intermediate French Reading
       FRN 341/342 Survey of French Literature
       GER 221/222 Intermediate German Reading
       GER 341/342 Survey of German Literature
       SPN 221/222 Intermediate Spanish Reading
       SPN 341/342 Survey of Spanish Literature
       SPN 351/352 Survey of Spanish American Literature

   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:
       LIT 101 The Reading of Literature: Fiction
       LIT 102 The Reading of Literature: Poetry
       LIT 103 The Reading of Literature: Drama

   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 CTA 210 Interpretative Reading

   2d. A course in cross-cultural or international studies
       Complete one of the following courses:
       *FLA 215 The Culture of the Latino Groups in the United States
       *LIT 204 Native American Literature
       *LIT 260 African American Literature

   3. Complete a course from one of the following options (3a or 3b):
3a. A course in philosophy
   Complete one of the following courses:
   PHI 100 Introduction to Philosophy
   PHI 110 Philosophies of Life
   PHI 120 Introduction to Critical Reasoning (3)
   PHI 130 Introduction to Logic
   PHI 212 Philosophy of Art
   PHI 215 Philosophy of Religion
   PHI 220 Ethics
   PHI 221 Business Ethics
   PHI 225 Political Philosophy
   *PHIL 226 Philosophy of Women

3b. A course in the study of religion
   Complete one of the following courses:
   HIS 100 The Comparative Study of Religion
   PSY 225 Psychology of Religion

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
   FA 101 Introduction to Art
   FA 107 Art History Survey I
   FA 108 Art History Survey II
   FA 122 Two-Dimensional Design
   FA 123 Drawing I
   FA 165 Graphic Design for Non-Majors
   FA 166 Ceramics for Non-Majors
   FA 167 Jewelry for Non-Majors
   *FA 222 African and African American Art

4b. A course in dance
   Complete DAN 106 Introduction to the Performing Arts

4c. A course in music
   Complete one of the following courses:
   MUS 100 Introduction to Music Theory
   MUS 106 Introduction to the Performing Arts
   MUS 107 Music Appreciation

4d. A course in theatre arts
   Complete one of the following courses:
   CTA 106 Introduction to the Performing Arts
   CTA 145 Introduction to Film Appreciation
   CTA 150 Introduction to Theatre
   *CTA 151 African American Theatre: An Introduction
   CTA 158 Fundamentals of Acting
   CTA 222 Drama and Play in Human Experience

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 (*).

HONORS HUMANITIES COURSES
Honors courses in basic studies 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:

CLA/HIS 104 Quest for Power: Famous Figures in History
3 credits .............................................................. Area: LIT or HIS

CLA/LIT 106 Rome and America
6 credits ...................................................................... Area: LIT

HIS 127 The Splendid Centuries of Austria
3 credits ......................................................................... Area: HIS

HIS/LIT 128 Russia in the Age of Tolstoy and Dostoevsky
3 credits ......................................................................... Area: LIT or HIS

FA/HIS 151 Reason and Revolution
3 credits ......................................................................... Area: FA or HIS

HIS/LIT 152 From the Gay Nineties to the Crash
3 credits ......................................................................... Area: LIT or HIS

PHI/LIT 155 Narrative in Literature and Film
3 credits ......................................................................... Area: LIT or PHI

179/279/379/479 Special Topics
3 credits ......................................................................... Area: Varies

FUTURE CHANGES IN THE BASIC STUDIES PROGRAM
Additional courses may be approved and refinements made periodically in the basic studies program.

Basic studies 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 Admissions 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:

"All students who graduate from EMU should have the same number and distribution of general education courses. For transfer students, EMU recognizes courses completed as part of the MACRAO agreement as satisfying comparable courses in EMU's basic studies but students must satisfy all EMU program requirements or equivalents."

MAJORS/MINORS

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

1. A student on the elementary teaching curriculum may present three minors of not less than 20 semester hours each of which are subject fields taught in the elementary grades.

2. A student who completes the specialized programs for teachers of art, business education, industrial education and music, or the professional programs in applied science, business administration, clinical laboratory sciences, criminal justice, nursing, music therapy, industrial technology, interior design, occupational therapy, health administration, language and international trade,
and social work 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. Basic studies 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. Of these 30 hours, a minimum of 15 hours must be taken on the Ypsilanti campus. The remaining 15 hours may be taken off campus.

Of the last 30 semester hours prior to the granting of the degree, at least 10 hours must be taken in courses offered by EMU. 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 physical activity or junior/community college credit. When a student has earned a total of 75 semester hours from community colleges and/or four-year institutions, courses should not be taken at a junior or community college for transfer to Eastern Michigan University.

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

Correspondence Credit: No more than 15 semester hours of correspondence credit may be applied toward a bachelor's degree, nor may correspondence credit be applied to meet any of the residence requirements.

Correspondence course grades will be included in figuring the scholarship index (grade point average).

Minimum GPA: Students will not be graduated if their scholarship index (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: All students shall present two semester hours of physical education activity credit for graduation. This requirement may be met in one of the following ways:

1. Students may elect to complete two hours of physical education activity from the wide range of classes offered each semester.
2. Veterans with at least one year of active duty may substitute their military service in lieu of the physical education activity requirement.
3. Any two Military Science courses may be applied in fulfillment of the physical education requirement. 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 semester 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 Academic Records Office, 302 Pierce Hall, must be submitted with the $30 graduation fee to the Cashier's Office, 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.

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 has 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, and 6-8 self-contained.

State Secondary Provisional Certificate, 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, 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 Vocational Certificate in Office or Distributive Education
- State Secondary Provisional Vocational-Certificate in Trade and Industrial Education.

Information on continuing certification may be obtained from the coordinator of continuing certification, 101 Boone Hall.

**PROFESSIONAL CERTIFICATE**

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

Qualifications and procedures for the Continuing and Professional Certificates are the same. However, the Professional Certificate is issued for a period of only 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 American Occupational Therapy Association (AOTA) requires successful completion of all academic requirements and fieldwork experiences and recommendation by faculty for candidates for certification 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 AOTA for certification and registration.

**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 and 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 supérieure 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.

**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 graduation audit in Room 302 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, curriculum in which enrolled, and major and minor elected. In addition, a check list is provided for degree expected and teacher certification required. Accurate information is essential.

Forms are filed in the Academic Records Office 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.

Students may return the forms by mail or in person in Room 302 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.
The Academic Advising Center provides help and guidance to students in a variety of circumstances. It has three major areas of responsibility: academic advising, academic support services and academic actions, each of which is concerned with the student's total welfare.

Academic advising is the central coordinating service for academic advising activities for all new and currently enrolled students and is the first formal academic contact on campus for new students. Academic advisers assist students in evaluating academic goals and objectives, designing programs, and selecting majors; counsel students on career choices; and provide faculty advisors with information and assistance.

Academic support services address the specific needs of students by:
1. Administering the PASS program (Promote Academic Survival and Success) for a limited number of freshman students. During their first college year, PASS students are required to take a two-semester intensive writing sequence and Introduction to University Study (EDP 106) in addition to other University courses. This program offers smaller classes, special tutoring assistance, and an intrusive advising program.
2. Organizing annual meetings to assist students who plan to apply to certain health occupation programs (i.e. nursing and occupational therapy) and providing workshops on program application and alternative decision-making to students competing for admission to these limited enrollment programs.
3. Providing special advising services for other groups such as undeclared students and returning adult students.

Academic support services is responsible for implementing University policies in the following areas:
1. Low scholarship, academic probation, dismissals and readmissions.
2. Late withdrawals from individual classes.
3. Pass/fail option, overload approval, retroactive withdrawals from the University.

Students have a number of other sources that can help their academic and career planning, enhance and develop their skills, and aid in dealing with academic problems and choices.

The Instructional Support Center of Learning Resources and Technologies (Room 102 Library, 487-1380) provides some tutoring in basic level classes and ready access to non-print materials for class assignments and personal use.

Handicapped students are encouraged to pre-register as early as possible in order to consult with the appropriate faculty members.

### Advising: Sequence of Courses

Use the following program plan to organize the sequence in which courses are likely to be taken:

**First Year**

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<th>Fall Semester</th>
<th>Winter Semester</th>
<th>Spring/Summer Semester</th>
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Area minimum of two semester hours of credit. (A course must be awarded a credit in each semester and during the day in the summer session. Appointments can be made by calling 487-3270.

Career planning information also is available at the following:
Academic Advising Center, which provides information on credit courses useful to students exploring careers, such as G&C 100 Career Exploration and Decision-Making, AHP 196 Introduction to Health Careers, BE 100 Contemporary Business, and AAD 179 Academics, Affiliation, and Achievement.

The Biology Career Center, 306 Mark Jefferson, which offers self-help career materials. (The office is open only during posted laboratory hours in the fall, winter, and summer semesters.)

Career Services, Goodison Hall, provides a Career Resource Center, described in the following section.

Instructional Materials Center, Department of Human, Environmental and Consumer Resources, 110 Roosevelt Hall, a research center. (For admission to the room, see the department secretary or an instructor.)

Mini-Career Resource Centers located in residence halls.

BASIC DEGREE CURRICULA

BACHELOR OF SCIENCE AND BACHELOR OF ARTS

Patricia L. Williams
Associate Director
Academic Advising Center
301 Pierce Hall
487-2170

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

Area Symbolics and communication Sem hours
One course in written composition. .................................................. 14-18
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.
One course in computer literacy.

Science and technology ................................................................ 9-14
One course in physical science.
  a. You must complete a course in chemistry or physics unless you submit appropriate evidence 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.
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 basic studies areas I-IV.

(The B.A. degree requires completion of one year college credit in a foreign language.)

Major (minimum) ......................................................................... 30
Minor (minimum) ......................................................................... 20

Physical education and health ..................................................... 2
(Any two courses in military science may be applied.)
Electives ...................................................................................... 20-39
Total .......................................................................................... 124

INDIVIDUALIZED INTERDISCIPLINARY CONCENTRATION

Charles Fulford
Assistant Director
Academic Advising Center
301 Pierce Hall
487-2170

An optional, individualized interdisciplinary concentration may be designed to replace the major and minor for students whose educational, vocational, or professional goals cannot be met by majors and minors currently available at Eastern Michigan Univer-
Because of its individual design, this program is especially attractive for non-traditional students and for those with a clear personal goal.

There are specific criteria for completing this program. The basic elements 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. Approval from representative departments.

All students who apply for such a program will still be responsible for other graduation requirements, such as basic studies, physical education, and residency policies. Students interested in this program should meet with the assistant director of the Academic Advising Center to discuss their goals. The following should be summarized in a written statement submitted to the assistant director:

1. Reasons the student cannot complete a traditional major offered by the university,
2. The immediate goals of the proposed program, and
3. The way in which the proposed program will operate to fulfill stated educational and life objectives.

The student and the assistant director will then draft a program of study, which must be reviewed and approved by appropriate faculty advisers. This approved program is forwarded by the assistant director to the Director of Records and Registration and Advising.

CAREER SERVICES CENTER

J. Michael Erwin, PhD
Director
Fourth Floor, Goodison Hall
487-0460

Adjunct Office: 210 Owen
487-4099

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, to 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 workshops
- “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 participate in the on-campus interview program.
UNIVERSITY HEALTH SERVICES

Ellen Gold
Director

Linda Vengrof
Associate Director

3rd Floor, Snow Health Center
487-1107

Recognizing that good health in its broadest sense of physical, emotional, and social well-being is an essential component for the success of academic endeavors at Eastern Michigan University, University Health Services provides students, staff, and faculty a healthy environment by offering programs and services to support their educational goals, personal development, effectiveness, and well-being.

HEALTH SERVICES

Diane Sobell
Clinical Administrator
2nd Floor, Snow Health Center
487-1122

Health Services, located in Snow Health Center, provides professional, quality, and confidential on-campus health care to the University community. Services include:

- General Medicine
- Allergy Injections
- Gynecology
- TB Testing
- Immunizations
- Physical Exams
- HIV/AIDS Testing and Counseling

In addition to the above services, Health Services also provides on-site pharmacy, laboratory and x-ray. If your personal physician or family doctor orders an x-ray or lab work, Health Services can perform these tests. The University Pharmacy fills prescriptions written by any physician licensed in the State of Michigan and provides non-prescription medicines and sundries.

Students may call Health Services to make appointments for needed services. Students generally can see a clinician the same day they call or the following day. For urgent care, it is possible to be evaluated on a walk-in basis. Allergy injections and TB skin tests are given without appointments during specified hours. Allergy medications can be stored at Health Services.

All students are encouraged to carry some form of health insurance during their years at Eastern Michigan. A voluntary student health insurance plan is available to students at the Student Government Office or the Health Services Insurance Office.

Students should always bring their student ID cards and have their insurance information available for the Health Services staff. Payment for all services is expected at the time of service. The following methods of payment are accepted:

- Charge to student account
- Visa/MasterCard
- Cash/check
- Payroll deduction (EMU faculty/staff)

COUNSELING SERVICES

Rosalyn L. Barclay
Associate Director
3rd Floor, Snow Health Center
487-1118

Counseling Services provides individual and group counseling to students and their spouses who are experiencing stress, relationship problems, anxiety, depression or other personal problems. Special workshops, programs and support groups are offered on a wide variety of topics, including test anxiety, communication, assertion and family issues. Programs are offered in classrooms, residence halls, Snow Health Center and at other campus locations. The staff is composed of trained psychologists. Senior level graduate students from the departments of Psychology and Guidance and Counseling are also available. All services are confidential and free of charge.

Self-help books and audiocassettes are available on many topics, including relationships, anxiety management, sexual concerns, family issues, and eating concerns.

The Campus Peer Program, sponsored by Counseling Services and Health Services, offers student volunteers the opportunity to assist their peers with a variety of personal and social concerns, sexual health and substance abuse issues. Campus Peers receive extensive training to prepare them to present interactive programs and lead discussions throughout the campus. For further information about the Campus Peer Program, call 487-3047.

Counseling Services is located on the top floor of Snow Health Center. Students may make appointments or initiate counseling during walk-in hours on Monday or Thursday, beginning at 12:45 p.m. Hours are 8 a.m. to 12 noon, and 1 p.m. to 5 p.m. Monday through Friday.

HEALTH RESOURCE CENTER

3rd Floor, Snow Health Center
487-2226

The Health Resource Center is the health education unit of University Health Services. Health educators with expertise in college health issues provide workshops and lectures to student organizations and academic classes; plan and implement special health education events; and, when appropriate, schedule individual consultations with students. A variety of topics are covered, such as: personal growth and development issues, sexual health concerns, and alcohol and other drug information. Specific programs include: HIV/AIDS testing and counseling, Lifelines performance company, Checkpoint, Project REACH-Out, and the Campus Peer Program.

The Health Resource Room contains health education brochures, pamphlets, journals, books, and videotapes available to students for personal use, research papers, and class presentations.

All services are free to students.

CHILDREN'S INSTITUTE

Lindy Buch
Associate Director

Lorraine Paffenroth
Coordinator of Services

1st Floor, Snow Health Center
487-1126

1st Floor, Rackham Building
487-2348

The EMU Children's Institute provides developmentally appropriate full- and half-day early childhood education programs and child care for children 18 months through 6 years of age year round. A full-day or morning-only kindergarten is offered along with an afternoon kindergarten enrichment program. The Institute operates as a service to student, staff and faculty families, and is also available for community families as space permits. Hours are 7:30 a.m. to 5:30 p.m. Monday through Friday. Children's Institute is closed when the University is closed, however additional time may be purchased during University breaks. The Children's Institute also serves as the practicum
placement site for training undergraduates in the fields of Early Childhood Education and Child Development.

An extensive parent education and family activity program is offered for enrolled families and the University community.

Flights of Imagination, the summer day camp offered at the Children’s Institute, operates from 9 a.m. to 4 p.m. Monday through Friday with two-week sessions offered throughout the summer. The camp features a variety of activities including swimming, gym, outdoor play, arts and crafts and nature study. Children entering kindergarten through third grade are invited to attend. Extended care is available from 7:30 a.m. to 9:00 a.m. and from 4:00 p.m. to 5:30 p.m.

The toddler (18-30 months) program is housed on the first floor of the Snow Health Center. The preschool/kindergarten and day camp are housed on both the first and second floors of the Rackham Building.

Please call the Children’s Institute office at 487-1126 for complete program and registration information.

ALCOHOL AND OTHER DRUG ABUSE PREVENTION

326 Snow Health Center
487-2226

Eastern Michigan University recognizes that alcohol and other drug issues can and do create barriers for students seeking to be successful, both academically and socially. Therefore, the University has designed several programs to achieve their goals.

Checkpoint is a six-hour educational program that addresses participants’ attitudes, knowledge and behaviors concerning alcohol and other drugs, encourages responsible decision making, and provides appropriate referral.

Project REACH-Out is a program in which EMU student volunteers, serving as role models, give presentations in area schools to educate youth that consuming alcohol before the legal drinking age or using illicit drugs is harmful and illegal.

The Student Advisory Council uses student leadership to coordinate campus-wide special events while Campus Peers use trained peers to educate and encourage students to make their own informed decisions about involvement with alcohol and other drugs.

The Health Resource Center Library, located in 330 Snow Health Center, has a ready reference area with informational files to help students find alcohol and drug-related topics for their writing and speaking assignments. The library also has videos, posters and audio cassettes.

The Alcohol and Other Drug Programs are housed in the Health Resource Center office, located in Room 326, Snow Health Center. This office is the primary location for the distribution of substance abuse prevention information and for the coordination of program activities. All services are free to students and student involvement is encouraged.

HOUSING & DINING SERVICES

Rebecca Figura
University Housing Director

Michael Crabb
University Dining Services Director
Lower Level Dining Commons ONE
487-1300

Eastern Michigan University Housing and Dining Services welcomes all students. Housing on campus accommodates 5,500 students and families and is considered by many to be the heartbeat of the campus. Living on campus offers students convenience, friendships, college life, and academic resources.

Thirteen residence halls are open to all students. First year students and sophomores are expected to live in University housing. There are two ways to reserve residence hall space.

By Mail:
1. Contact the Housing Office and request a Housing Packet.
2. Read all of the materials in the packet including the Residence Hall/Dining Service Contract and the Assignment Request form.
3. Select a lifestyle option and hall that accommodates your goals. Select a meal plan.
4. Record selections on the Residence Hall/Dining Service Contract and the Assignment Request form.
5. Mail the completed forms along with a $100 prepayment envelope provided to Cashier’s Office.
6. Hall assignments are mailed during the latter part of July through August.

At Fast Track Programs or In Person:
1. Students participating in Fast Track have the opportunity to reserve residence hall space as part of the program.
2. Students coming to campus can reserve a space by completing steps 1-6 above in person.

First year students and sophomores wishing to commute must complete an Exemption Form and attach supporting documentation. Exemption requests should be sent to the Housing Office, where it will be reviewed.

The University reserves all rights regarding the assignment and reassignment of rooms or the termination of occupancy in accordance with University policies, regulations and procedures. It is the policy of the University not to discriminate in the assignment of residence hall rooms. The University is not responsible for lost, stolen or damaged property. Students living in University housing assume responsibility for their own hours.

Alternative choices among the special living options in the residence halls are:
- Center for First Year Students: Open only to new first year students. Offers special programs, services, and staff for new students.
- Upperclass and Over 21: Designed for the older student.
- International Center: A blend of international and American cultures.
- Community of Scholars: Reserved for those students who are part of the Honors Program or who have a college GPA of at least a 3.0 or a 3.3 high school GPA.
- Alcohol-Free Rooms and/or Floors: For those students who desire an environment free from alcohol.
- No-Meal Plan Option: Students can elect a no-meal plan in selected halls only.
Year Round Halls: Designed for those students who find it difficult to go home during University scheduled breaks and during the spring and summer.

Barrier Free Rooms: Rooms for people with special needs.

SINGLE STUDENT APARTMENT PROGRAM
On-campus apartments operated by the University for single students are available in Brown and Munson halls. Preference for leasing these apartments is given to upperclass and graduate students.

The number and type of apartments available in the Brown/Munson complex are as follows:
- 180 two-person, one-bedroom apartments
- 20 one-person efficiency apartments
- 4 six-person, two-bedroom apartments

Experience with rental requests indicates that the single efficiency apartments are usually opted for by students who are residents of Brown/Munson apartments at the time a single becomes available (residency establishes first priority for assignment to any particular apartment type).

Residents desiring to apply for a two-person apartment are encouraged to apply together with the other student with whom they desire to share an apartment.

Upperclass and graduate students who wish to apply for a Brown/Munson apartment should obtain an application form from Brown 107, the manager's office, complete the application and return it to the University Cashier's Office with the $45 non-refundable apartment deposit.

FAMILY HOUSING PROGRAM
The University owns and operates 449 furnished one- and two-bedroom apartments for student families. To apply for a University apartment, either a husband or a wife must be a full-time student or accepted for a full academic program. The number of children in the family establishes priority for a two-bedroom apartment assignment. However, families with more than three children cannot be accommodated.

Priority for assignment is given to applicants who have been on the waiting list for the longest period of time for the particular date involved. Students with families who wish to apply for a University apartment should obtain an application from the University Apartments Office, complete the application and return it to the University's Cashier's Office with a $45 non-refundable application payment.

OFF-CAMPUS HOUSING
A variety of living arrangements are available for upperclass students who desire to live in the off-campus community and who meet the eligibility requirements to do so. Those students who plan to live off-campus are responsible for making their own arrangements to secure housing, as the Housing Office does not rate or inspect off-campus facilities.

The REACT Office in Goodison Hall assists students who desire advice on finding off-campus housing and/or addressing any problems that might be associated with off-campus apartment living.

UNIVERSITY DINING SERVICES
University Dining Services provides several options to meet the varying appetites, dining habits and scheduling needs of today's on-the-go commuters and residential students.

Eastern Eateries is a sleek, contemporary fast food mall, offering several distinctive food options, including burgers, pizza, deli, chicken, confectons, cappuccino, and Taco Bell Express. Students on the meal plan who choose to "transfer" their meals to the Eateries can select from hot breakfast, lunch and dinner specials in each shop. Open 7 a.m. to midnight Monday through Friday, and 9 a.m. to midnight on weekends. Hours will vary per shop.

Located on the lower level of the Eateries is QUICKFIXX, the main convenience store for campus, offering grocery items, greeting cards, video and VCR rentals, film and photographic processing, refrigerator rentals, toiletries, and snack foods. Plenty of comfortable seating at tables and booths on both levels, with video games on the lower level, make this an exceptional, exciting dining experience on campus. QUICKFIXX is open seven days a week.

Dining Commons ONE, our primary residence hall dining facility, reflects the dynamics of contemporary dining. Offering a variety of 3-4 hot entrees daily (lunch and dinner) through four serving lines, "DC ONE" also takes pride in its homemade soup and pita bread, extensive super salad bar, and the extremely popular WOK-ON-IN stir fry during dinner.

HillTop Cafe offers an all-you-can-eat format to residence hall diners (breakfast, lunch and dinner), but on a slightly smaller scale than DC ONE. HillTop is especially convenient for students living in Hill, Pittman and Hoyt halls. An adjunct to this operation is FASTSTOP, offering hot or cold lunches and dinners to go. Both are open Monday through Friday.

Pittstop, our little convenience store on "the hill," offers deli sandwiches, some grocery items, ice cream and beverages, and caters to those late-night, last-minute urges.

Courtside is our snack shop located within the Rec/M building, offering deli sandwiches, yogurt, nachos, hot dogs, salads, fresh fruit and a variety of beverages.

Big Bob's at the Lakehouse is within the Rec/M building outdoor recreational lake area. Its nautical setting with fireplace offers snacks, sandwiches, and grilled items. Open year-round, this snack shop offers dining "in front" of the fireplace or outside at the lake's edge under umbrella tables.

Flying Eagles trailer is located outside Pray-Harrold, offering steak sandwiches, hot dogs, and other on-the-go items.

Located within McKenny Union is Pumpernickel's Dell, offering a variety of salads and sandwiches made to order, homemade bread baked daily on site, quiche, soup, and an extensive breakfast menu. Que Pasta, Pizza & Peppers features a unique combination of pizza, pasta, and Mexican items to go. The Lobby Shop offers snacks, toiletries, film and photographic processing, and a handsome selection of gourmet candies. There is also a Wendy's and the Club Cappuccino, a coffee and yogurt shop.

University dining facilities accept the Eastern Express Card, a debit card available to students on campus, which gives them a 5 percent discount on all purchases. The Eastern Express Card is also good at Wendy's and the University Bookstore, but there is no 5 percent discount for non-University-owned operations.

STUDENT HOUSING
University residence halls and student apartments are operated on a self-liquidating plan; i.e., construction is financed from revenue bonds, which together with operational costs are paid from rental revenue.

Residence Halls:
The Jones-Goddard Community of Scholars serves approximately 400 students and is the headquarters for the University Honors Program. Goddard Hall also provides classroom space for Industrial Education in a converted cafeteria. The residence halls, traditional in design, enclose a central courtyard. They are named for Lydia Jones, EMU's first full-time dean of women, who served from 1924-39, and Mary Goddard, professor of botany from 1900-1939. The Office of Research Development is located in the basement of Goddard Hall.

Downing-Buell-Wise-Best comprise a four-unit complex of separate buildings adjoining a central dining commons. Located in the heart of campus, they provide space for approximately 1,200 students. Estelle Downing was professor of English from 1898-1938; Bertha G. Buell was professor of history, English literature and political science, 1899-1937; Margaret E. Wise, a first grade teacher trainer during her tenure from 1893-1939, also served as
director of placement, 1927-1939; and Martha Best was professor of biology and bacteriology from 1924-1952.

Phelps-Sellers-Walton-Putnam, a second four-unit complex, has physically attached buildings that share a common dining area. Also built to accommodate 1,200 students, the complex honors Jessie Phelps, professor of zoology, physiology and hygiene from 1898-1939; John A. Sellers, professor of chemistry from 1921-1961 and department head from 1958-1961; Genevieve Walton, head librarian from 1892-1932, who planned the initial Mark Jefferson Library and co-founded the Michigan Library Association; and Daniel Putnam, first head of the Education Department, the University’s first librarian from 1875-87 and considered EMU’s sixth president for his services in this capacity from 1868-1870 and 1871-1906.

Pittman-Hill-Hoyt are contemporary 11-story, high-rise towers and the most recently constructed campus residential units. All halls have ample social and study space on each floor and each room offers a panoramic view of the campus and surrounding area. Marvin Pittman was director of rural education and a teacher trainer from 1921-1934; Susan B. Hill was dean of women from 1939-1962, then dean of students from 1962-1969 and also served as a Ypsilanti city councilwoman.

Student Apartments:
The Brown-Munson Apartments were remodeled from a residence hall facility to 207 single-student apartments in the early 1970s. They are designed primarily for two tenants, although some single and multiple occupancy units are available. Apartments are furnished, carpeted and air-conditioned, and all utilities except telephone are included in the monthly rent. The apartments carry the names of James M. “Bingo” Brown, football and baseball coach from 1923-29 and the first dean of men from 1925-1962, and John M. Munson, an EMU graduate who served as president from 1933-1948.

Pine Grove Terrace, on the northwest corner of main campus, is the closest family housing unit to campus and has 140 one-bedroom apartments and 29 two-bedroom apartments in two-story masonry units. Each building contains laundry and storage facilities, provides exterior balconies and private furnaces. Constructed in the late 1950s, the apartments are furnished.

Cornell Courts Apartments, west of Pine Grove and across Oakwood Avenue, offer 69 one-bedroom and 66 two-bedroom apartments in two-story masonry buildings. Each apartment is furnished; laundry facilities are in each building unit and courtyards provide family social areas.

The Westview Apartments, completed in the late 1960s, are approximately one mile west of main campus near the intercollegiate athletic facilities. They are built in the townhouse style with bedrooms generally located on the second floor above living areas. Occupants have both a front and back yard. A total of 73 one-bedroom and 72 two-bedroom furnished apartments are available.

Note: In the three student family housing areas, a limited number of unfurnished units are available for those desiring to provide their own furnishings, but early reservations must be made with the Housing Office for these unfurnished units.

Typical Residence Hall Room Floor Plans

![Typical Residence Hall Room Floor Plans](image-url)
CAMPUS LIFE

The campus climate at EMU is one of vitality, energy and involvement. Students are offered an extensive variety of opportunities for out-of-classroom social contact, leisure-time activities, group participation, intellectual challenge, cultural enrichment, government and media experience, organized athletic and recreational activities.

OFFICE OF CAMPUS LIFE
Glenna Frank Miller
Director
11 McKenny Union
487-3045

The Office of Campus Life serves as a central resource for students seeking special opportunities for involvement both outside and inside the classroom. The Office of Campus Life organizes and schedules University-wide extracurricular and co-curricular events throughout the school year. The Campus Life Council serves as the student programming board.

Office of Campus Life student development services include leadership training, student organization support services (for more than 200 student organizations), and freshman and parent orientation programs. The new volunteer program, The VISION (Volunteers Incorporating Service Into Our Neighborhoods) Project, offers service opportunity to students and staff.

Other program offerings are the traditional all-campus celebrations such as the First Week Fling, Family Day, Martin Luther King Jr. Day and Founders Day. Additionally, the Office of Campus Life provides coordinate programming support to campus departments including the Equity Office’s Lecture Series, and the programs offered through academic departments such as the Poetry Symposia, art exhibits, and the performing arts. Campus Life also coordinates campus lectures, concerts, and collegiate entertainment.

Below please find a list of the more than 200 registered student organizations. Students interested in exploring these and other groups or in starting a new organization should contact the Office of Campus Life directly.

Academic/Professional

Administrative Management Society
Alpha Epsilon Rho National Broadcasting Society
Alpha Kappa Psi Professional Business Fraternity
Alpha Phi Alpha Fraternity, Inc.
American Center for Design
American Production and Inventory Control Society
American Society of Interior Designers
Anthropology Club
Athletic Trainer’s Club
Beta Alpha Psi
Beta Beta Beta Biological Honor Society
Beta Gamma Sigma
Campus Peer Program
Chemistry Club
College Democrats
College Republicans
Collegiate Deca
Computer Information Systems Club
Design Group
Eastern Constructors
English Club
Family and Consumer Education Society
Finance Club
Graduate Business Student Association
Health Administration Student Organization
Hospitality Management Club
Intermedia Gallery/Group
International Facility Management Association
Legal Assistance Club
Legal Careers Association
Living History Club
Macintosh User’s Group (MUG)
Marketing Students Association
Michigan Teacher of Emotionally Disturbed Children
National Association of Black Accountants
Phi Alpha Theta History Honor Society
Philosophical Club
Pi Omega Pi
Pi Sigma Alpha
Pi Theta Epsilon
Premedical Student Association
Professional Association for Industrial Distribution (PAID)
Psychology Club
Recreation Organization
Semper Fidelis Society
Sigma Tau Gamma
Society of Plastic Engineers
Student Council for Exceptional Children
Student Dietetic Association
Student Michigan Education Association
Student Nurses Association
Student Occupational Therapy Association
Student Organization for Educators of Hearing Impaired
Student Social Work Organization
Students Against Hunger and Homelessness
Travel & Tourism Association
United Ministries in Higher Education
University Organists’ Association
Women in Communication

Advisory

Campus Life Council
Campus Peer Program
Collegiate Deca
Exercise Science
Older & Wiser
Organization for the Learning Disabled
Paddling Organization of Eastern Michigan
Student Government at EMU
Student Occupational Therapy Association

Athletic/Recreational

Ballroom Dance Club
Bu jinkan Ninjustu Club at EMU
Hockey Club
Kappa Kappa Psi
Physical Education Organization
Ski Club
Water Polo Club
Women’s Soccer Club

Communications

Alpha Epsilon Rho National Broadcasting Society
Association of Black Communicators
English Club
Macintosh User’s Group (MUG)
Society for Technical Communication, Inc.
Society of Physics Students
Wo/Men in Communications, Inc.
WQBR 640 AM Ypsilanti

Cultural/Entertainment/Coordinating

African American Dance Company “Eclipse”
African Students Association
Alpha Phi Alpha Fraternity, Inc.
Art History Club
Astronomy Club
Campus Life Council
Caribbean Student Association
Chess Club
Eastern People of Color Coalition
English Club
Gamers of Eastern Michigan
General Union of Palestinian Students
Hillel
Hong Kong and Macau Student Association
Honors Student Organization
Indian Student Association
Intermedia Gallery/Group
International Student Association
Latino Student Association
Legal Careers Association
Lifelines Company
Living History Club
National Association for the Advancement of Colored People (NAACP)
National Organization to Reform Marijuana Laws (NORML)
Pakistan Student Association
Palestine Democratic Youth Organization
Phi Beta Sigma Fraternity, Inc.
Phi Beta Sigma Sweethearts
Phi Eta Psi Fraternity, Inc.
Players at EMU
Premedical Student Association
Psychology Club
Race Relations Task Force
Residence Hall Association
Society of Physics Students
Spanish Club
Student Action Team
Student Dietetic Association
Student Organization for African-American Unity
Student Organization United for Peace (SOUP)
Table Top Entertainment
Umoja
United Ministries in Higher Education
Watercolorists at EMU
Yemeni Students Union

Ethnic/Minority
African American Dance Company "Eclipse"
African Students Association
Alpha Kappa Alpha Sorority
Alpha Phi Alpha Fraternity, Inc.
Association of Black Communicators
Association of Black Social Workers
Black Greek Council
Black Student Union
Caribbean Student Association
Chinese Student Association
Delta Sigma Theta Sorority
Eastern People of Color Coalition
Indonesian Student Association
Japanese Student Association
Korean Student Association
Latino Student Association
Lesbian, Gay, and Bisexual Student Association (LGBSA)
Malaysian Student Association
National Association for the Advancement of Colored People (NAACP)
National Organization to Reform Marijuana Laws (NORML)
Native American Student Organization
Omega Pearls
Phi Eta Psi Fraternity, Inc.
Phi Eta Psi Emeralds
Queer Student Union
Student Association of Black Filmmakers
Student Organization for African-American Unity
Thai Student Association
Turkish Student Association
Umoja

Honorary
Beta Alpha Psi
Beta Beta Beta
Beta Gamma Sigma
Golden Key National Honor Society
Honors Student Organization
Kappa Delta Pi
Mortar Board, Inc.
Omicron Delta Epsilon
Phi Alpha Theta
Phi Kappa Phi
Phi Sigma Pi National Honor Fraternity
Stoic Society
University Ambassadors Society

Political
Black Student Union
College Democrats
College Republicans
National Organization to Reform Marijuana Laws (NORML)
Queer Student Union
Student Huron Restoration Alliance
Student Organization for African-American Unity
Student Organization United for Peace (SOUP)
Take Back the Night Organization

Religious
Campus Crusade for Christ
Christ With-in Ministries
Christian Challenge
Christian Life Center Student Outreach
Christian Science College Organization
Christians in Action
Fellowship of Christian Athletes
Gospel Choir
Hillel
Holy Trinity Chapel Peer Ministers
InterVarsity Christian Fellowship
Magickal Life
Students for Christ at EMU
Students of the Church of Christ
United Ministries in Higher Education
University Lutheran Chapel

Service
Alpha Phi Omega
Black Student Union
Caribbean Student Association
Chinese Student Association
Circle K Club
Fellowship of Christian Athletes
Golden Key
Holy Trinity Chapel Peer Ministers
Hong Kong and Macau Student Association
International Student Association
Latino Student Association
Lifelines Company
Mortar Board
National Association for the Advancement of Colored People (NAACP)
Older and Wiser
Omega Pearls
Omega Xi
Phi Beta Sigma Fraternity, Inc.
Phi Beta Sigma Sweethearts
Phi Eta Psi Emeralds
Phi Theta Epsilon
Players at EMU
Project REACH-Out
Public School Outreach Program
Stoic Society
Student Council for Exceptional Children
Student Huron Restoration Alliance
Student Organization for African-American Unity
Students Against Hunger and Homelessness
Turkish Student Fellowship
United Ministries in Higher Education
University Ambassadors Society
Wo/Men in Communications, Inc.
Ypsilanti Food Co-op

Social/Environmental Awareness
Black Student Union
Chi Gamma Iota Veterans Society
Earth '67
Eastern Constructors
English Club
Hillel
Honors Student Organization
International Student Association
Latino Student Association
Lesbian, Gay, and Bisexual Student Association (LGBSA)
National Association for the Advancement of Colored People (NAACP)
Omega Xi
Panhellenic Council
Phi Beta Sigma Fraternity, Inc.
Phi Beta Sigma Sweethearts
Phi Eta Psi Fraternity, Inc.
Project REACH-Out
Psychology Club
Public School Outreach Program
Residence Hall Association
Student Council for Exceptional Children
Student Organization for African-American Unity
Student Organization United for Peace (SOU)
Students Against Hunger and Homelessness
Students Organized for Alternative Learning
United for Peace (SOU)
Take Back the Night Organization
Tau Kappa Epsilon
Turkish Student Association
United Ministries in Higher Education
Womynspace
Ypsilanti Food Co-op
Zeta Phi Beta Sorority

Lambda Chi Alpha
Mu Omicron Beta
Omega Psi Phi
Phi Alpha Theta
Phi Beta Sigma
Phi Delta Kappa
Phi Eta Psi
Phi Sigma Kappa
Phi Sigma Phi
Phi Sigma Pi
Pi Sigma Alpha
Pi Theta Epsilon
Sigma Phi Epsilon
Sigma Nu
Sigma Tau Gamma
Tau Kappa Epsilon
Theta Chi

Sorority—All subclassifications
Alpha Gamma Delta
Alpha Kappa Alpha
Alpha Sigma Tau
Alpha Xi Delta
Delta Pi Epsilon
Delta Sigma Theta
Delta Zeta
Iota Beta Psi
Kappa Diamonds
Omega Phi Alpha
Panhellenic Council
Phi Beta Sigma Sweethearts
Sigma Delta Tau
Sigma Gamma Rho
Sigma Kappa
Sigma Nu
Sigma Sigma Sigma
Sigma Sweethearts
Zeta Phi Beta

Fraternity—All subclassifications
Alpha Epsilon Pi
Alpha Eta Rho
Alpha Kappa Psi Business
Alpha Phi Alpha
Alpha Phi Omega
Beta Alpha Psi
Black Greek Council
Delta Sigma Phi
Inter-Fraternity Council
Kappa Alpha Psi
Kappa Delta Pi
DEAN OF STUDENTS

Bette C. White
Dean
Gregory A. Peoples
Associate Dean
215 Goodlson Hall
487-3118

The Office of the Dean of Students serves undergraduate and graduate students through the combined offices of Foreign Student Affairs, Veterans Services, Services for Students with Disabilities, Multi-Cultural Center, and Greek letter organizations.
The Conduct Code and Judicial Structure is adjudicated through the Dean of Students Office.

OFFICE OF FOREIGN STUDENT AFFAIRS
Paul Dean Webb
Coordinator
209 Goodlson Hall
487-3116

The Office of Foreign Student Affairs extends a hand of welcome to all foreign students pursuing their educational goals at Eastern Michigan University. Concerned, responsible and professional staff assist students in any matter, including orientation, legal advice (immigration), academic, financial, employment and personal concerns. Personnel also provide help with the preparation of documents needed to maintain favorable status in this country.
The 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. It initiates enhancement programs such as cross-cultural activities on and off-campus.
Foreign students are encouraged to make regular contact with the office.

VETERAN SERVICES OFFICE
Robert E. Teehan
201-202 Goodlson Hall
487-3119

The Veteran Services Office coordinates all campus services for veterans entering or returning to the University to complete their education. It is the resource center for veterans' benefits and the office to which veterans must report successful academic progress to maintain benefits, class drops and adds, or changes in personal status affecting benefits.
The office assists veterans also in housing and financial aid, and works closely with disabled veterans to provide full educational benefits. Any questions veterans may have should be directed to a representative in this office.

SERVICES FOR STUDENTS WITH DISABILITIES OFFICE
Bette C. White
Dean
215 Goodlson Hall
487-3118

The Services for Students with Disabilities Office utilizes resources of both the campus and the community and its agencies to meet the needs of students and to support them in meeting their educational goals. Michigan Vocational Rehabilitation and the Michigan Commission for the Blind are both used as supportive agencies in assisting some students.

Students may also 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.

MULTI-CULTURAL CENTER
Lydia Jones
Coordinator
216 Goodlson
487-2377

The Multi-Cultural Center is our office of minority affairs with an exciting menu of programs and events planned to enlighten students to the cultural diversity that exists at Eastern Michigan University and the nation as a whole. The center was established to help enrolled African American, Hispanic American, and Native American students prosper at the University.
The center provides the following services:
1. A furnished lounge to host programs, events, and meetings. The lounge can be used free of charge; however, its use is restricted to registered groups and enrolled Eastern Michigan students.
2. Ombudsman service to assist students and organizations with problems and concerns.
3. Referral service for student retention, tutorial and academic services.
4. The Multicultural Times, published by student staff on a monthly basis, reporting national, state and campus news for the three ethnic groups.

OFFICE OF EQUITY PROGRAMS
Lynette Findley, Ph.D.
Director
Patrick Pleb, Ph.D.
Coordinator
204 Pierce Hall
487-2133

The Office of Equity Programs provides support services to African American, Hispanic American, Native American and Asian American (underrepresented) students. The programs and services provided range from College Days to doctoral scholarships. The KCP College Days Program serves junior high school through senior high school students. Each component orientates participants to college life, helps build self-esteem and motivation, and exposes them to a variety of career options. The Wade McCree Scholarship Program awards 30 general fund scholarships annually in the fall to underrepresented students entering the ninth grade. The Summer Incentive Program allows high school graduating seniors with high academic potential the chance to take classes at the University during the summer and, if successful, enroll in the fall. The Select Student Support Services is a retention program that provides academic support services to all underrepresented students to help them succeed and graduate from EMU. The Minority Teacher Initiative Program is designed to increase the number of underrepresented teachers by providing a transition from the community college to EMU. The Future Faculty Program offers scholarships to underrepresented master's and doctoral candidates to offset the expenses of earning a master's or Ph.D.

STUDENT GOVERNMENT
233 Goodlson Hall
487-1470

Student government at EMU is committed to improving the quality of 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. Its 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, and its student services office, known as REACT, provides personal 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.

**STUDENT MEDIA**
Christine Colcer
Director
121 Goodison Hall
487-1010

The Student Media office provides both information and creative outlets for the total University community. The *Eastern Echo* is the student newspaper published thrice-weekly in the fall and winter semesters and weekly during spring and summer sessions. The *Aurora* is the University yearbook, and *Cellar Roots* is the literary arts magazine. Editors are selected each spring following interviews by the Student Media Board, a policy-review board comprised of persons both internal and external to the University community, including many in professional journalism-related fields. Students are encouraged to join publication staffs or to submit literary and art for magazine publication.

- The *Eastern Echo* focuses on issues and events and also serves as an outlet for opinions of the University and surrounding community. It offers hands-on training and experience for those interested in the field of journalism, business, marketing, advertising, graphic design and photography. It is written and edited by student editors and reporters.
- The *Aurora* focuses on the events, moods and atmosphere encompassing the Eastern Michigan University community within a single year of a student's experience on campus. Its pages offer a piece of history which might otherwise be forgotten among the many memories in the hectic life of a university student.
- *Cellar Roots* has become the major outlet for student creativity, whether it be photographs, paintings, fiction pieces or poetry. Published once a year, its contents are chosen by a selection committee comprised of faculty and students.

All three publications consistently win national awards for both design and content. Students who participate gain valuable experience, which leads to a high job placement percentage.

**RADIO STATIONS**

**WQBR**
129 Quirk
487-2228

WQBR, under the auspices of the department of Communication and Theatre Arts, is both an instructional and activity program for students studying or interested in radio broadcasting. The station offers both music and student-generated programs emanating from the Quirk Studios and is “on air” from 1 p.m. to 1 a.m. Monday through Friday.

**WEMU**
Arthur J. Timko
Director
426 King Hall
487-2229

WEMU, founded in 1965 as a student station, has been affiliated with National Public Radio since 1978. It is under the auspices of the executive vice president and serves a broadcast coverage area from Detroit to Jackson and Flint to Toledo, 24 hours a day, seven days a week. Operating at 89.1 FM with 16,000 watts of power, WEMU offers concentrations of local and national NPR news and jazz featuring national and local performers. During the football and basketball seasons, all EMU games are broadcast.

The station accommodates interns and employs several students in addition to its full-time professional staff.

**INTERCOLLEGIATE ATHLETICS**
Tim L. Weiser
Director
Carole Huston
Associate Director
Bruce Zylstra
Associate Director, Business
Bowen Field House
487-1050

The Department of Intercollegiate Athletics offers a broad-based program of varsity sports for men and women that will develop the academic and athletic skills, understanding, knowledge, attitudes and values that will contribute to the student-athlete's success in today's complex society.

Eastern Michigan is a member of the National Collegiate Athletic Association (NCAA) and competes at the Division I-A level in both men’s and women’s sports.

In 1971, EMU joined the Mid-American Conference (MAC), which is composed of 10 schools, including EMU's sister institutions, Central Michigan and Western Michigan, as well as Akron, Ball State, Bowling Green, Kent State, Miami, Ohio, and Toledo.

The mission of Eastern Michigan University’s intercollegiate athletic program is to sponsor competitive men's and women's sports. These sports, represented by the team members, shall strive within the contest rules and regulations to attain the ultimate competitive goal—athletic success.

To be eligible to participate in intercollegiate athletics, the student-athlete must satisfy all University, MAC and NCAA requirements. NCAA regulations for participation in intercollegiate athletics require that the student-athlete earn an average of 12 hours per semester or 24 semester hours of additional credit between seasons of competition. These credits must be applicable toward the individual student-athlete’s declared degree program.

**RECREATION AND INTRAMURAL SPORTS**
Robert England
Director
Olds/Robb Student Recreation Center
487-1338

The Olds/Robb Student Recreation Center, opened in 1982, provides recreational activities for the total campus community, including intramural sports programs, inter-university sports competitions, personal physical development and skill activities. All persons regardless of age, sex, skill level or sport interest are afforded the opportunity to participate in a wide range of activities.

The indoor multi-purpose building has 13 racquetball courts; a gymnasium with four basketball courts, six volleyball courts and 12 badminton courts; two swimming pools (one 50-meter and one club
pool); an indoor jogging track; four weight areas; a fitness area; combatives room; utility gym; sauna; whirlpool; aerobic studio; and an Outdoor Recreation Center (487-1025) that checks out equipment ranging from backpacks to cross country ski packages for Rec/IM members.

A new addition to the facility, opened in 1993, is the outdoor lake area. The lake is a constructed freshwater facility for swimming, boating, and ice skating. The project includes a sunning slope, picnic area, three lighted volleyball courts, two lighted basketball courts, a one mile jogging trail, and a meeting lodge equipped with a fireplace, equipment checkout room, lockers, and a food service short order grill.

Student membership is automatic with a fee assessed through tuition and entitles the membership card holder to all facility uses. There are additional fees for lockers, towel rental, outdoor equipment rental, and guests. Others desiring to regularly use the facilities may purchase a membership card during building hours. The Competitive Edge pro shop in the building sells all types of sports equipment and clothes.

The Rec/IM programs are based on a recognition of the importance of a total fitness approach in our lives. Scheduled programming in step, hi/low combo, low impact, and aqua aerobics reflect this thought. Body sculpting, step and sculpt, along with power walking, are also available.

The Intramural Sports Program, which utilizes the Olds/Robb Student Recreation Center facilities as well as outdoor fields and tracks, provides activities in which all students may participate. Selected sports are offered on a co-educational basis or for either men or women as follows:

Coeducational activities include basketball, bowling, cross country, track, paddleball, softball, tennis and two-person volleyball competitions, free throw, and sports trivia contests.

Men's activities include basketball, bowling, floor hockey, football, golf, softball, swimming, tennis, track, volleyball, weightlifting and wrestling competitions, as well as field goal kicking and home run contests.

Women's activities include basketball, bowling, football, golf, softball, swimming, tennis and volleyball competitions.

Club sports, sponsored by the program, include competition in eight sports. These inter-university sports competitions are organized and operated as a student club. They include women's soccer, ice hockey, gymnastics, water polo, racquetball, and bowling.

In addition, there are instructional martial arts classes in aiki, aikido, karate, and taekwondo. Other instructional classes (fees charged) include kayaking and scuba.

### RESOURCE CENTERS

#### CENTERS FOR CORPORATE TRAINING

Walter DiMantova  
Director  
487-2259

The Centers for Corporate Training, established in 1988 through a consolidation of the college service centers, is an agency within the Executive Division. Its primary responsibility is to carry out the University mission of service through contract learning. The Center for Corporate Training provides business, industry, education, health, and human services agencies with short- and long-term assistance in training, research and development. The Center for Corporate Training's staff, including select University faculty and contracted outside experts, are involved in training both hourly and salaried personnel in a large number of diverse industries. To date this assistance has been provided in locations across the country as well as in Toronto, Canada; Sao Paulo, Brazil; London, England; and Cardiff, Wales. Contracts have ranged from one day to one year, with much of the Centers for Corporate Training's activities relating to workforce training-on-site in manufacturing plants.

Major areas of programming include:
- Workplace literacy; basic skills enhancement
- Quality science consulting and training
- Environmental technology
- Computer training
- Hazardous waste management
- Nurse aide training
- Cross-cultural communication
- Health and safety training
- Technical writing
- Office automation and information technology
- JIT inventory systems
- Marketing and management training
- Communication skills

The Centers for Corporate Training is currently regarded as one of the premier agencies capable of providing comprehensive training and consultation in workplace literacy, statistical process control (SPC), and experimental design/industrial statistics.

#### CENTER FOR ENTREPRENEURSHIP

Patricia B. Weber  
Director  
34 N. Washington  
487-0225

The Center for Entrepreneurship was established in January 1986 to provide training and build a network of peer support for entrepreneurs and heads of high-growth companies. Its services are based on a foundation of applied research designed to increase our knowledge of entrepreneurship and growth management.

The primary purpose of the center is to increase the number and success rate of Michigan entrepreneurs and of entrepreneurially managed firms. The desired end result is the stimulation of greater job creation as well as greater job stability in Michigan's economy.

The key objectives of the Center for Entrepreneurship are:
- To provide entrepreneurs and growth managers with success tools and skills,
- To foster public recognition and understanding of the achievements and accomplishments of entrepreneurs, and
- To foster interest in and appreciation of entrepreneurship among our youth.

Talented entrepreneurs cannot be created by universities. But they can be helped to be more successful if trained in the use of the
tools and skills required to run a growing business. The center is a vehicle for helping to develop and disseminate these tools and skills.

**Coatings Research Institute**

The Coatings Research Institute (CRI) was established in 1985 with the assistance of a major grant (totaling nearly one million dollars) from the state of Michigan. The institute is designed to conduct research and development efforts under contract to industry and government, and represents the formalization of research activities that started in 1980.

The CRI comprises a fully-equipped laboratory capable of conducting research ranging from the synthesis and modification of polymers to the formulation and testing of paints. Including the adjacent PRA (Paint Research Associates), the coatings effort comprises a microcosm of a large paint company including research, development, analysis, formulation, and testing capabilities.

The coatings effort occupies 12,000 square feet of facilities with an additional three thousand under construction to house the Emissions Evaluation Center.

**Corporate Education Center**

Marcia D. Harrison
Director
1275 Huron Street
487-0600

The Corporate Education Center is an entrepreneurial organization owned and operated by EMU that serves both the public and private sectors.

The center has 38,000 square feet of conference and seminar space designed to accommodate multiple meeting needs with advanced communications and audio-visual equipment. Such features include:

- two auditoriums seating 100 and 200 respectively, complete with audiovisual systems including rear screen projection, a simultaneous translation system, and closed circuit teleconferencing.
- a networked computer laboratory with 15 stations
- seven conference rooms and five seminar rooms
- an executive boardroom
- an outdoor court area for informal gatherings during the spring, summer and fall seasons.

The center is located on Ford Lake at the Huron Street exit off I-94 in Ypsilanti. It is part of a 186-acre development that includes a 236-room Radisson hotel and the Eastern Michigan University Huron Golf Club, featuring an 18-hole championship golf course.

**Center for Public Service (Formerly ICARD)**

Charles M. Monsma
Director
34 N. Washington
487-0243

ICARD is a public service unit of Eastern Michigan University. Its purpose is to make the expertise and capabilities of the University available to governments, community agencies, and businesses. It is part of an overall effort by EMU to establish a closer working relationship with the communities it serves and to aid them in meeting their needs and in solving their problems.

Eastern Michigan University, through ICARD, can provide expertise and resources for the identification of problems, the assessment of needs and the development of solutions in a wide variety of settings. By drawing upon University-wide resources for project development and implementation, faculty, staff, and students with appropriate skills and experience are brought together from a variety of disciplines. When needs cannot be met within an organization or from outside commercial sources or private consultants, ICARD can fill the gap.

ICARD staff develops projects through personal and professional contacts and responds to requests from clients outside the University. Once a project has been identified, support staff and methodologies are determined. Individual faculty members serve as project directors, using additional faculty and student help in project implementation.

Examples of ICARD activities include economic development and planning efforts for local communities, economic and environmental impact assessments, management analysis, evaluation of personnel systems, and scientific analysis of environmental concerns. Twice a year, ICARD publishes an economic forecasting report, available by subscription, *Regional Economic Forecasts for Michigan*. Also published twice a year is the newsletter *Michigan Economic Notes*. Each spring, ICARD hosts an Economic Forum on campus.

Since 1991, ICARD has offered training programs for public sector employees in cooperation with the Government Educational Institute. Through ICARD's Public Service Education Program, a monthly series of open subscription workshops has been offered. In addition, educational and training programs are customized under contract to meet the needs of specific communities or employee groups.

Another integral part of ICARD is the SER-GEM Center (Southeast Regional Groundwater Education in Michigan), funded in part by the Kellogg Foundation. SER-GEM's capabilities include environmental educational services, environmental audits, and computerized database assembly.

For further information, contact ICARD at 487-0243.

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

Patricia Ryan and Bruce L. Warren
Directors
102 King Hall
487-0372

The Institute for the Study of Children and Families was established in 1979 for the purpose of providing focus and support to the study of children and families through research, demonstration projects, non-credit educational activities and consultation concerned with the determinants and/or consequences of childhood and family life.

The institute promotes and encourages interdisciplinary study of children and families throughout the University and offers opportunities for undergraduates and graduate students interested in research or demonstration projects relating to children and families. Cooperative interaction extends beyond the University to other organizations, agencies and institutions.

Institute-sponsored programs include the National Foster Care Resource Center, the Teaching-Learning Community Intergenerational Program, and the Behavioral Medicine Project. The institute cooperates in workshops sponsored with other University departments and community organizations. Its Child and Family Publications Division disseminates 46 publications based on institute projects.
The National Institute for Consumer Education, formerly called Michigan Consumer Education Center, was established in 1973 and is a professional development center in consumer and economic education. It provides an interdisciplinary program and involves faculty from all of the colleges within the University.

Among the Institute's patrons are students and faculty at this and other universities, classroom teachers (elementary through adult) and representatives of business, labor, government, clergy, and community groups. It also maintains networks with leaders in consumer affairs at the local, state, and national levels through advisory groups, newsletters, and professional associations, and is an affiliated center of the National Council on Economic Education.

Its objectives are to provide program development services, including courses, conferences and publications for educators; consultant and cooperative activities; and a clearinghouse of education resources in consumer and economic education.

The Institute houses the nation's leading collection of consumer education resources. The publication Classification of Concepts in Consumer Education is distributed internationally for use by educators in program planning and curriculum development.

Program funding in excess of nearly $2 million has been received from external public and private sources since 1973.

The Library is essential to the instructional programs of the University. It houses more than 600,000 volumes, 205,000 government documents, and 690,000 microforms. The library is fully automated and provides a variety of electronic reference sources.

Special collections include an Instructional Materials Center in conjunction with the educational and psychology holdings, a map library in the science and technology unit, government documents and University archives. Special library features include small study rooms, faculty and student seminar rooms, and a Copy Services Center with rental typewriters, photocopy machines, and print from microforms. Reserve reading materials assigned for use in course work may be checked out at the Materials Access Services Desk. Each library unit maintains pamphlet files for ephemeral materials, such as newspaper clippings and pamphlets.

The Access Services Office (Room 214) provides an active orientation program designed to acquaint all students with basic and subject-oriented resources. Library instruction is given progressively to prepare students for life-long learning after their formal education has been completed.

The LOEX (Library Orientation/Instruction Exchange) Clearinghouse, a national office collecting and sharing data and materials on teaching library skills, was established at Eastern Michigan University over 10 years ago and currently provides services to more than 2,000 U.S. libraries.

The Media Services Center, on the first floor of the Library, assists departments and/or faculty in integrating media within their instructional programs. Consultation is usually followed by the selection of appropriate existing media and/or production of original media to achieve educational goals.

The center is responsible for the purchase, storage and circulation of non-print materials which include films and videocassette recordings. Other services include providing the equipment required to utilize the non-print materials, a pool of audio-visual machines to check out, preview rooms for viewing video materials, and a campus instructional television system.
The center is equipped to produce charts, graphs, photographic slides, mounted and laminated materials, overhead visuals, and computerized visuals.

The Instructional Support Center (Room 102) provides individual and group assistance to registered students with a well-equipped facility, including an expanded microcomputer laboratory. Through these services, students receive not only tutoring assistance for classes, but also training to master academic skills. More specifically, the Instructional Support Center offers:

1. Free tutoring in a variety of basic studies areas (current schedules are posted in Room 102).
2. Audio-tape recordings and phonodiscs with available stereo and video equipment for personal use or class assignment.

Learning Technologies provides support for research and instructional computing for students and faculty by managing the University's Internet connection, and mainframe and workstation services and facilities.

Learning Technologies operates computing labs open to all EMU students in the Library's Instructional Support Center, the College of Business, Goddard Hall, and McKenny Union.

The CIC (Center for Instructional Computing), housed in Room 215 University Library, is a computing development center for use by faculty.

The Learning Technologies Resale Program, Room 208 University Library, offers discounted Macintosh computers, and software. These programs are available to individual students, faculty, and staff.
COLLEGE OF ARTS AND SCIENCES

Barry Fish, Dean
Barbara Richardson, Associate Dean
James Waltz, Acting Associate Dean
Velma Clarke, Administrative Associate II
411 Pray-Harrold
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 Program
**AFRICAN AMERICAN STUDIES**

Ronald C Woods  
Department Head  
620 Pray-Harrod  
487-3460  

Professors: Clovis E. Semmes, Ronald C Woods  
Assistant Professor: Melvin T. Peters  

African American Studies examines the evolution and current status of persons of African descent in the United States. It studies the African American experience as an entity in its own right and as a microcosm of dynamics operating in the domestic and global setting.

Objectives of the department are 1) to cultivate and disseminate knowledge about the African American experience, 2) to provide students the skills needed to confront the future world, and 3) to increase understanding of the role of multiple factors in shaping the social order.

**Programs of Study**  
**Major:**  
African American Studies  
**Minor:**  
African American Studies  

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

**ACADEMIC MAJOR**

**AFRICAN AMERICAN STUDIES MAJOR**

<table>
<thead>
<tr>
<th>Sem hours</th>
<th>Major in African American Studies .................</th>
<th>33</th>
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<tbody>
<tr>
<td>1.</td>
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<tr>
<td></td>
<td>AAS 101 Introduction to African American Studies</td>
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<td>AAS 201 Foundations of Knowledge in African American Studies</td>
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<td>AAS 401 African American Studies Research Seminar</td>
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<td>Choose twenty-one credits from the following:</td>
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<td>3.</td>
<td>Elective ...............................................</td>
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<tr>
<td></td>
<td>Choose one course from the following: Any course offered by the African American Studies department, including independent studies and special topics; or: CTA 151 African American Theatre: An Introduction, CTA 251 African American Theatre: Creative Problems, FA 222 African and African American Art, ANT 236 Peoples and Cultures of Africa, ECO 321 Minority Workers in the Labor Market, ECO 332 Urban Economics, GEO 322 Geography of Africa, GEO 332 Urban Geography, HIS 342 North Africa, 1798 to Present, HIS 347 Sub-Saharan Africa to 1885, HIS 348 Twentieth Century Africa, HIS 356 The Old South, PLS 372 Government and Politics of Sub-Saharan Africa, PSY 340 Psychological Perspectives on Prejudice and Discrimination, SOC 214 Racial and Cultural Minorities, SOC 306 The Urban Community</td>
<td></td>
</tr>
</tbody>
</table>
ACADEMIC MINOR

AFRICAN AMERICAN STUDIES MINOR

Sem hours
Minor in African American Studies ...................................... 21

1. Required courses .......................................................... 9
   AAS 101 Introduction to African American Studies ........ 3
   AAS 201 Foundations of Knowledge in African American Studies .......................................... 3
   AAS 401 African American Studies Research Seminar ... 3

2. Restricted electives ...................................................... 9
   Choose nine credits from the following:

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:

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
   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 selected topic under the supervision of the staff. 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 selected diasporic communities, and considers the impact of the African presence on world development.
   Prereq: AAS 101 or department permission.

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 jr./sr. 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 jr./sr. 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 selected topic under the supervision of the staff. Possible approaches include library research, field research, and participant-observer experiences.
Prereq: AAS 401 and junior standing, or department permission.

ART

John E. Van Haren
Department Head
114 Ford Hall
487-1268

Associate Professors: Christopher Bocklage, Gretchen Otto, Richard E. Washington
Assistant Professors: Susan LaPorte, George LaRou, Julia R. Myers, Diana Pancioli
Instructor: Carole Pawloski

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 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 semester 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 Art Education
Bachelor of Science in art

Programs of Study

Curricula:
Art Education
Fine Arts
Fine Arts plus teacher certification

Majors:
Art
Art for K-12 education

Minors:
Art
Art for K-12 and special education-K-12
Art history

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

Graduate programs under the auspices of the department lead to the master's degree in art education and studio art. The MA (studio art or art education) and MFA degrees are described in the Graduate Catalog.

ACADEMIC MAJORS

CURRICULUM FOR FINE ARTS

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 complet-
Minor in art ........................................................................ 21-25

ART MINOR

Refer to the basic studies requirements in the catalog on pp. 26-30. One course in art, dance, music, or theatre arts will automatically be met by the fine arts courses below.

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FA 101 Introduction to Art or FA 123 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>FA 122 Two-Dimensional Design</td>
<td>6</td>
</tr>
<tr>
<td>Elect one art history course (FA 108 Art History Survey II suggested)</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>12</td>
</tr>
<tr>
<td>Choose 12 credits from art studio and/or art history courses in consultation with the advising coordinator.</td>
<td></td>
</tr>
</tbody>
</table>

ART MAJOR

Students may elect the following 30 semester hour major, but the preceding 54-60 semester hour Fine Arts major is advised.

Teacher certification in art is not obtainable using this major.

<table>
<thead>
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<tr>
<td>FA 107-108 Art History Survey I-II</td>
<td>6</td>
</tr>
<tr>
<td>FA 122 Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>FA 123-124 Drawing I-II</td>
<td>6</td>
</tr>
<tr>
<td>FA 210 Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>FA 215 History of 19th-Century Art</td>
<td>3</td>
</tr>
<tr>
<td>FA 216 History of 20th Century Art</td>
<td>3</td>
</tr>
<tr>
<td>FA 231 Three-Dimensional Design</td>
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</tr>
<tr>
<td>Electives</td>
<td>12</td>
</tr>
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ACADEMIC MINORS

ART MINOR

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<td>Electives</td>
<td>12</td>
</tr>
</tbody>
</table>

ART HISTORY MINOR


<p>|</p>
<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FA 107-108 Art History Survey I-II</td>
<td>6</td>
</tr>
<tr>
<td>FA 215 History of 19th-Century Art</td>
<td>3</td>
</tr>
<tr>
<td>FA 216 History of 20th Century Art</td>
<td>3</td>
</tr>
<tr>
<td>FA 248 Seminar in 20th Century Art</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>5</td>
</tr>
</tbody>
</table>

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

TEACHING MAJORS

ART EDUCATION AND BACHELOR OF FINE ARTS
PLUS TEACHER CERTIFICATION
K-12 TEACHER CERTIFICATION

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

Basic Studies

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 121 English Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ...................................... 50

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.

FA 108 Art History Survey II (3)
FA 122 Two-Dimensional Design (3)
FA 123 Drawing I (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 credits from the following list of courses:

If following the B.A.E. curriculum, nine courses:

If following the B.F.A. plus teacher certification, six courses plus a sequence of three advanced courses from one of the areas (e.g., FA 355 Textiles, FA 356 Textiles, FA 455 Textiles):

FA 201 Graphic Design (3)
FA 235 Textiles (3)
FA 304 Beginning Photographic Imagery (3)
FA 305 Printmaking (3)
FA 307 Ceramics (3)
Credit hours in Specialty Studies: ................................. 51

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)
FA 317 Teaching of Art (2)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
EDP 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
FA 416 Art Methods and Materials (2)
EDU 496 Student Teaching (6)
EDU 497 Student Teaching (6)

Credit hours in Professional Studies: .................................. 35

Total credit hours required: ........................................... 136

*Course required for and applicable to major.

ART MAJOR

K-12 TEACHER CERTIFICATION

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

The curriculum for this major is that which is listed above under “teaching major” in the K-12 art program, plus the IV-B-4 requirement from that program’s Basic Studies requirements. No minor is required.

51 hours, not including course work applicable to Basic Studies.

TEACHING MINOR

ART MINOR

ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-
ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

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

FA 122 Two-Dimensional Design (3)
FA 123 Drawing I (3)
FA 231 Three-Dimensional Design (3)
One art history course (FA 108 suggested) (3)
9 hours in studio art and/or art history, of which at least 6 hours must be in courses numbered 300 or above. FA 124, FA 201, *FA 300, FA 304, FA 305, FA 307, FA 310, FA 313, FA 314, and FA 320 may be used to meet this requirement.
**FA 317 Teaching of Art (2)
**FA 416 Art Methods and Materials (2)

25 hours (including hours satisfied in Basic Studies and professional studies)

*Prereq: Admission to the teacher education program. Required in professional studies for elementary program. May be substituted for FA 317 and FA 416.
**Prereq: Admission to the teacher education program.

ART COURSES FOR NON-MAJORS

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 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.

ART EDUCATION COURSES

Art education courses cannot be substituted for studio or art history requirements.

FA 300 Art Integration for the Elementary Teacher. 4 hrs
Understanding, appreciation, and awareness of art in its varied contemporary and multi-cultural 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, c) integration of art into the general classroom procedures to enhance learning. Non-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 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, junior standing.
STUDIO ART COURSES

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 201 Graphic Design. 3 hrs
Introduction to lettering, type design, and illustration. Problems examine design considerations, production services processes used in newspaper and magazine advertising, covers, and posters.
Prereq: FA 122 and FA 123.

FA 205 Letterforms and Typography. 3 hrs
Includes free-hand lettering, constructed alphabets, invented signs; emphasizes the importance of typographic design.
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 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 302 Graphic Design. 3 hrs
Advanced design and illustration as applied to multicolor magazine book illustration, direct mail advertising, and other areas of two-dimensional commercial design.
Prereq: FA 201.

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. 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; development of further skills with sculpture materials and concepts.
Prereq: FA 310. Art majors only.

FA 313 Painting. 3 hrs
Advanced study problems; the human form as composition and design; varied media.
Prereq: FA 210. 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 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, 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 will design, plan, and execute urban environmental murals, sculpture, parks, and malls.
Prereq: Department permission.

FA 346 Advertising Layout Design. 3 hrs
Deals intensively with conceptual and technical issues, concentrating on mastery of the tools, materials, and techniques in producing layouts and comprehensives.
Prereq: FA 205.
FA 348 Logos and Symbols. 3 hrs
Designing of logos and their market application to various media. Analysis of the creative and mechanical problems in the design of symbols.
Prereq: FA 205.

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 387 Cooperative Education. 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, 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, 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 418 Portraiture. 3 hrs
Emphasizes analytical drawing and painting of the volume and structure of the human form; also those specifics of detail and gesture necessary to illusionistically represent a person.

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 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 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 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 441 Studies in Clay and Glazes. 3 hrs
Research and experimentation with earthenware, stoneware, and porcelain clays and slips. Students will examine, formulate, calculate, vary, and correct glazes for low and high temperatures, in electric and gas firings.
Prereq: FA 407 or department permission.

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
Prereq: FA 355 or FA 356. Art majors only.
FA 460 Advanced Graphic Design. 3 hrs
Advanced work in design and research of promotional brochures, annual reports and other communicational print. Portfolio development in preparation for job placement. 
Prereq: FA 348.

FA 462 Advanced Illustration. 3 hrs
Deals with attitudes, philosophies, aesthetics, techniques, and experiences as demonstrated in contemporary illustration. Emphasis on problems confronting a professional illustrator. 
Prereq: FA 302 and FA 346.

FA 464 Corporate Identity and Graphic Systems. 3 hrs
Formulation of a corporate image reflecting the function and philosophy of a corporation. Emphasis on the establishment of a uniform graphic system used in a campaign including print. 
Prereq: FA 348.

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. 3 hrs
Continuation of FA 387. 
Prereq: FA 387. Approval by graphic design area.

ART HISTORY COURSES

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 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 222 African and African American Art. 3 hrs
Surveys the visual arts of African and African American artists. Discussion of the form and content of African art in relation to its function in tribal life. Historical survey of African American artists with emphasis on current works.

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 336 History of Impressionism and Post-Impressionism. 3 hrs
Focuses on an understanding and appreciation of the painting, sculpture, and graphic arts of the last three decades of the 19th century. 
Prereq: FA 108 or FA 215.

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 421 History of Oriental Art. 3 hrs
A survey of the art of the Far East, with significant examples chosen from India, China, 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 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, Greek Revival, International Style, will be traced back through their origins and development. 
Prereq: FA 107 or FA 108 or department permission.

FA 430 Mesoamerican Art. 3 hrs
A survey of the art of Mesoamerica, the civilization that existed in Mexico and Central America from about 1500 B.C. until the coming of Cortes 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, department permission.

FA 433 Color Theory. 3 hrs
An advanced course, which can be used as part of the BFA painting sequence, dealing with formal problems of color phenomena and interaction in painting. New media and contemporary concepts are emphasized. Studio and lecture. 
Prereq: FA 313.

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 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.

SPECIAL TOPICS COURSES

These courses are available to all art students.
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 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 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 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.

INDEPENDENT STUDY COURSES

These courses are available to all art students.

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

Douglas Y. Shapiro
Department Head
316 Mark Jefferson
487-4242


Associate Professors: Catherine E. Bach, Allen Kurtta, Paul W. Miliske, Robert K. Neely, John A. Novak, P. George Simone, James L. Vanden Bosch, Elizabeth L. Waffle

Assistant Professors: Jamin Eisenbach, Teresa M. Morton, Peter Reinthal

The Biology department offers a major in biology with four specified fields of concentration: ecosystem biology, general biology, microbiology, and physiology; and four minors: biology, botany, zoology, and conservation and resource use. The department also provides programs in pre-forestry, pre-medicine (allopathic and osteopathic), pre-optometry, and pre-podiatry. 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 J. Milton Hover laboratory and greenhouse. The adjacent Loezell 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 (described under University Campuses at the back of this catalog) 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 semester 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 in Goodison Hall.

Coursework 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
Major in Biology
- Biology for elementary education
- Biology for secondary education

Concentrations:
- Ecosystem biology (aquatic and terrestrial)
- General biology
- Microbiology
- Physiology
Minors:
- Biology
- Biology for elementary education
- Biology for secondary, K-12, and special education-secondary
- Botany
- Zoology
- Conservation and resource use

Pre-professional programs:
- Pre-chiropractic
- Pre-forestry
- Pre-medicine (allopathic and osteopathic)
- Pre-optometry
- Pre-podiatry

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.

Pre-medical and pre-osteopathic medical students must meet with the advising coordinator to take advantage of the Pre-Medical Advisory Committee system for expediting medical school admission testing and recommendation.

Advising Coordinators:
- Undergraduate coordinator: Paul W. Miliske
- Conservation and resource use: Catherine E. Bach
- Ecosystem biology: Robert K. Neely
- Elementary science education: Suzanne J. Stevens
- General biology: Paul W. Miliske
- Microbiology: Stephen C.Y. Liu
- Physiology: P. George Simone
- Pre-forestry: Gary L. Hannan
- Pre-medicine (allopathic and osteopathic), pre-optometry, pre-podiatry, and pre-chiropractic: P. George Simone
- Pre-veterinary medicine: Elizabeth L. Waffle
- Secondary biology education: John A. Novak

Graduate study leads to a Master of Science degree in biology with concentrations in community college biology teaching, ecosystem biology, general biology, physiology, and molecular/cellular biology. These programs are described in the Graduate Catalog.

ACADEMIC MAJORS

BIOLOGY MAJOR

Majors should start with BOT 221 General Botany followed by ZOO 222 General Zoology in their freshman year. Majors without a strong high school biology preparation should take BIO 105 Biology and the Human Species before electing either BOT 221 or ZOO 222. (BIO 105 will not count toward the biology major or minor, although credit earned in this course will count toward the 124 hours required for graduation.)

Chemistry Requirement: The minimum requirement in chemistry for all biology majors is CHM 121-124 General Chemistry I-II with labs, CHM 270-271 Organic Chemistry with lab (or CHM 371-373). A course in biochemistry with laboratory is highly recommended.

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

Mathematics Requirement: The minimum requirement in mathematics for all biology majors is a basic studies course in mathematical reasoning. It is strongly recommended that students who plan to pursue graduate work in biology take MTH 120 -121 Calculus I-II.

The following courses may NOT be counted toward a biology major or minor: BIO 105 Biology and the Human Species, ESC 302 Elementary School Science, ESC 303 Science for the Elementary Teacher, BIO 205 Field Biology, and BIO 403 Methods and Materials for Teaching Biology.

Sem hours
Major in biology ................................................. 30-62
1. Required basic courses ...................................... 11
   BOT 221 General Botany ..................................... 4
   ZOO 222 General Zoology .................................. 4
   BIO 301 Genetics ............................................. 3
2. Field of concentration ...................................... 19-51

ECOSYSTEM BIOLOGY CONCENTRATION
(AQUATIC AND TERRESTRIAL)

In addition to the 11 semester hours of basic course work required of all biology majors, this concentration includes 20 semester hours of required courses and a required group science minor of 31 semester hours.

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.

Sem hours
Ecosystem biology concentration (aquatic and terrestrial) ...... 54
1. Required courses .............................................. 23
   BIO 314 Energy Analysis and Environmental Decision-Making ............................................... 3
   BIO 320 Introduction to Cell Physiology .......... 4
   A botany taxonomic field course* ...................... 3
   A zoology taxonomic field course* ...................... 3
   BIO 420 General Ecology ..................................... 4
   Approved electives ........................................... 6
*See list at end of general biology concentration.
2. Required group science minor ............................. 31
   CHM 121-124 General Chemistry I-II with labs ...... 8
   CHM 270-271 Organic Chemistry with lab .......... 5
   PHY 221 Mechanics, Sound, and Heat ......... 4
   PHY 222 Electricity and Light .................. 4
   GLG 160 Physical Geology ................................ 4
   GES 324 Weather .............................................. 3
Students entering pre-professional programs in chiropractic medicine, dentistry, allopathic medicine, osteopathic medicine, podiatric medicine, or optometry; and students specializing in field biology, plant and animal taxonomy, cell biology, forestry, 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 this 30 semester hour major there MUST be at least seven hours each in botany (may include microbiology) and at least seven hours in zoology. An experience at a biological station is recommended.

Courses designated as botanical taxonomic field courses:
- BOT 354 Trees and Shrubs
- BOT 450 Aquatic Tracheophyta
- BOT 451 Freshwater Algae
- BOT 453 Taxonomy and Ecology of Diatoms
- BOT 455 Systematic Botany

Courses designated as zoological taxonomic field courses:
- ZOO 300 Natural History of Invertebrates
- ZOO 310 Natural History of Vertebrates
- ZOO 421 Entomology
- ZOO 422 Ichthyology
- ZOO 425 Ornithology
- ZOO 474 Herpetology
- ZOO 480 Protozoology
- ZOO 482 Aquatic Entomology
- ZOO 485 Mammalogy

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).

A biochemistry minor is required. Mathematics courses are specified. Students with a GPA of 3.0 or better and those planning on graduate work in microbiology are encouraged to take the higher level organic chemistry courses (CHM 371-373), biochemistry courses (CHM 451-453), and physics courses (PHY 223 and PHY 224) rather than the lower numbered courses.

Microbiology concentration

1. Required courses
- MIC 329 General Microbiology
- MIC 333 Principles of Immunology
- MIC 335 Immunology and Serology Laboratory
- MIC 444 Microbial Physiology
- MIC 452 Advanced Microbiology

2. Electives
- Choose at least one course from each of the following:
  - Group A—Advanced Genetics
    - MIC 541 Microbial Genetics
    - BIC 542 Molecular Genetics
  - Group B—Cellular/Molecular Biology
    - MIC 454 Molecular Biology of Bacteria and Viruses
    - MIC 455 Molecular Biology of Algae and Fungi
  - Group C—Medical Microbiology
    - MIC 432 Clinical Microbiology
    - MIC 433 Medical Mycology
    - ZOO 462 Parasitology
  - Group D—Environmental/Field and Applied Microbiology
    - BOT 404 Mycology
    - MIC 451 Freshwater Algae
    - MIC 453 Taxonomy and Ecology of Diatoms
    - MIC 442 Microbial Ecology
    - ZOO 485 Food Microbiology
    - ZOO 480 Protozoology

3. Required biochemistry minor
   - CHM 121-124 General Chemistry I-II with labs
   - CHM 270-271 Organic Chemistry with lab
   - CHM 281 Quantitative Analysis
   - CHM 351 Introductory Biochemistry
   - CHM 453 Biochemistry Laboratory

Mathematics requirement

Students are encouraged to take at least three semester hours in research and practical experience through the following courses:
- MIC 497/498/499 Special Problems in Microbiology
- MIC 387/487 Cooperative Education

Physiology concentration

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. It is recommended that students consider continuing with graduate study to expand their career opportunities.
Biology Department undergraduate coordinator. Program changes require prior written departmental approval.

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**CONSERVATION AND RESOURCE USE MINOR**

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 PLS 202 State and Local Government.

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**Botany Minor**

Students minoring in Biology are strongly advised to take CHM 119 Fundamentals of Chemistry or CHM 121-124 General Chemistry I-II with labs.

Students with no previous biology in high school must follow the directives stated under the biology major by starting with BIO 105 Biology and the Human Species.

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TEACHING MAJORS

BIOLOGY MAJOR

SECONDARY TEACHER CERTIFICATION

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

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. CHM 121-122 General Chemistry I with lab (4)*
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. PHY 221 Mechanics, Sound, and Heat (4)*
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: .................................................. 50

TEACHING MAJOR

BIOLOGY MAJOR

ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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.”

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SPD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
BIO 403 Methods and Materials for Teaching Biology (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ......................................... 34

Total credit hours required, with 20-hour minor: .......................... 147

*Course required for and applicable to major.

BIOLOGY MINOR

ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-
ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in biology, certification code “DA.” The certification test covering this field is #17, “Biology.”

BOT 221 General Botany (4)
ZOO 222 General Zoology (4)
BIO 403 Genetics (3)

Credit hours in major and related areas: ..................................... 43

Minor
Select a minor from the approved list (see p. 230)

Credit hours in minor: ............................................................ 20

Professional Studies
100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SPD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
BIO 403 Methods and Materials for Teaching Biology (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ......................................... 34

Total credit hours required, with 20-hour minor: .......................... 147

*Course required for and applicable to major.

TEACHING MINOR

BIOLOGY MINOR

ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-
ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in biology, certification code “DA.” The certification test covering this field is #17, “Biology.”

BOT 221 General Botany (4)
ZOO 222 General Zoology (4)
BIO 403 Genetics (3)

Credit hours in major and related areas: ..................................... 43

Minor
Select a minor from the approved list (see p. 230)

Credit hours in minor: ............................................................ 20

Professional Studies
100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SPD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
BIO 403 Methods and Materials for Teaching Biology (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ......................................... 34

Total credit hours required, with 20-hour minor: .......................... 147

*Course required for and applicable to major.
Strongly advised: CHM 119; or CHM 121-122 and CHM 123-124.
An additional four cognate hours of science must be completed to meet NCA requirements (24 hours) for teaching this minor at the junior-senior high school level. BIO 403 may be included in these additional hours. Students with no previous biology in high school must start with BIO 105, which does not count toward the minor.
In some programs ZOO 200 may be satisfied through Basic Studies.

24 hours (including hours satisfied in Basic Studies)

**PRE-PROFESSIONAL PROGRAMS**

**PRE-FORESTRY**

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 pre-forestry adviser to establish the most appropriate program of courses.

The pre-forestry curriculum is designed for such diverse fields as conservation biology, wildlife management, resource policy, and fisheries biology, as well as forestry.

**PRE-MEDICINE (ALLOPATHIC AND OSTEOPATHIC), PRE-OPTOMETRY, PRE-PODIATRY, AND PRE-CIIPRACTIC**

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 pre-medical programs. The requirements are similar to those for allopathic and osteopathic medical schools as described below.

While medical schools do not prescribe a pre-medical curriculum, they expect a thorough understanding of modern concepts in biology, chemistry, and physics, and all basic mathematical competence, with some specifying a course sequence in mathematics. Most pre-medical 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 pre-medicine adviser’s office, should be consulted. The introductory chapters of this book should be read by every prospective medical student.

If students electing the pre-medicine 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:

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**First Year—Pre-Medicine**

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First semester</strong></td>
<td>12-18</td>
</tr>
<tr>
<td>CHM 121-122 General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>BOT 221 General Botany</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>2-4</td>
</tr>
<tr>
<td>Basic studies</td>
<td>2-6</td>
</tr>
<tr>
<td><strong>Second semester</strong></td>
<td>13-19</td>
</tr>
<tr>
<td>CHM 123-124 General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>2-4</td>
</tr>
<tr>
<td>ZOO 222 General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>Basic studies</td>
<td>3-7</td>
</tr>
</tbody>
</table>

*Students with one to two years of less than high quality algebra take MTH 105 College Algebra. Students with only one year of algebra take MTH 104 Intermediate Algebra, followed by MTH 105 College Algebra. Students without trigonometry take MTH 107 Plane Trigonometry.

**BIOLOGY COURSES**

**BIO 105 Biology and the Human Species.**

4 hrs

The basic concepts of biology, with emphasis on human structure and function, as well as key issues and problems confronting the human. Designed for the student who is taking neither major nor minor in biology. Meets for two lecture hours, one recitation hour, and three laboratory hours per week. Audio-tutorial laboratory covers basic biological concepts.

Not open to students with credit in BOT 221, and/or ZOO 222. Does not count toward the major or minor.

**BIO 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.

**BIO 204 The Biology of Cancer.**

2 hrs

Introduces the types, characteristics, putative causes, and current treatments of cancer.

Prereq: One year of high school biology or an introductory college level biology course.

**BIO 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 BOT 221 or ZOO 222 except by department permission.
Prereq: BIO 105 or equivalent or department permission. Does not count toward the major or minor.

BIO 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: BIO 105 or equivalent. Does not count toward the major.

BIO 224 Principles of Conservation. 4 hrs
Introductory principles of conservation. Basic processes at the cellular level emphasized, rather than the applications of such processes to a particular organism.
Prereq: BIO 105 or equivalent or department permission. Does not count toward the major.

BIO 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.
Prereq: Previous field course work in biology.

BIO 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: BIO 105 or equivalent.

BIO 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 as long as different topics are studied.
Prereq: Department permission.

BIO 301 Genetics. 3 hrs
A lecture course emphasizing the basic principles of inheritance with their application to plants and animals.
Prereq: BOT 221 and ZOO 222 or equivalent.

BIO 302 Genetics Lab. 2 hrs
A laboratory course designed to accompany or follow BIO 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: BIO 301 (may be taken concurrently).

BIO 307 Introduction to Hematology. 3 hrs
The study of the formed elements of the blood, their precursors, and some of their products. An introduction to the theory and principles of routine medical laboratory procedure and technique. Not open to those with credit in CLS 307.
Prereq: Department permission.

BIO 314 Energy Analysis and Environmental Decision-Making. 3 hrs
An introductory course in techniques used in environmental decision-making, emphasizing the energy analysis approach involving both natural and technological energy flows.
Prereq: BIO 105 or equivalent or department permission. Does not count toward the major or minor.

BIO 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.
Prereq: BOT 221; ZOO 222; CHM 121-124; CHM 270, 271 or equivalent.

BIO 334 Immunohematology/Urinalysis. 3 hrs
A lecture and laboratory course dealing with the principles of immunohematology and the theory and practice of urinalysis.
Prereq: BOT 221; ZOO 222 or department permission. Does not count toward the major or minor.

BIO 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.

BIO 387 Cooperative Education. 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 (BIO 387 and BIO 487) alternated with full-time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.
Prereq: Junior standing.

BIO 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: BOT 221, ZOO 222, and department permission. Junior standing. Not open to students on academic probation.

BIO 407 Advanced Hematology. 3 hrs
Theory and application of hematological test procedures. Includes interpretation of results, problem solving, and correlation of laboratory findings with disease states. Not open to those with credit in CLS 407.

BIO 410 Limnology. 3 hrs
A lecture, laboratory, and field course dealing with physicochemical and biological interrelationships in standing waters.
Prereq: BIO 420 and one taxonomic field course, or department permission.

BIO 412 Biogeography. 2 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: A course in college biology and a course in earth science, or department permission.

BIO 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.

BIO 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, staining, and staining.
Prereq: Two college biology courses.

BIO 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 biology courses or department permission.
BIO 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: BOT 221, ZOO 222, and one taxonomic field course or department permission.

BIO 433 Stream Ecology. 3 hrs
A field biology course that includes the study of physicochemical and biological aspects of stream eco-systems. Includes a study of laboratory and field methods.
Prereq: BIO 420 and one taxonomic field course, or department permission.

BIO 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 CLS 434.
Prereq: BIO 307 and CLS 335.

BIO 435 Wetland Ecosystems. 3 hrs
Advanced field ecology course in the theory and method of study of wetland ecosystems.
Prereq: BIO 420 and one taxonomic field course, or department permission.

BIO 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: BIO 420, BOT 334, or BOT 453.

BIO 461 Oncology. 3 hrs
A lecture course on physico-chemico-biological agents and factors of non-human and human cancer etiology, pathogenesis of neoplastic transformation in vitro, biochemistry and immunobiology of cancer, host-tumor relationship, and "model systems" in control.
Prereq: MIC 329 or equivalent; CHM 270, 271.

BIO 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.

BIO 480 Radiation Biology. 3 hrs
A lecture course on the molecular, cellular, organismal, super-organismal effects of corpuscular and electromagnetic radiation. Topics will cover the basic mechanisms of biological responses of viruses, microbes, plants, and animals to radiation.
Prereq: Microbial, plant, or animal physiology; one year of physics; one year of chemistry. Genetics is desirable.

BIO 487 Cooperative Education. 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 (BIO 387 and BIO 487) alternated with full-time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.
Prereq: BIO 387.

BIO 488 Honors Practicum in Ecosystem Biology. 2 hrs
A practical experience in an environmental field study including experimental design and collection, analysis, and interpretation of data as a member of a research team. Emphasis is placed on the application of biological theory to problem solving.
Prereq: Senior status(85 hours), GPA 3.0 overall and 3.3 in biology, a sponsoring faculty member, and/or approval of the Ecosystem Biology Program Committee; prior application required.

BIO 489 Practicum in Biology. 3 hrs
Provision of practical experience in a particular field of study, including experimental design and collection, analysis, and interpretation of data as a member of a research team. Emphasis placed on the application of a biological theory to problem solving.
Prereq: Department and adviser permission.

BIO 497/498/499 Independent Study. 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

BIO 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 as long as different topics are studied.
Prereq: Department permission.

BIO 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.

BIO 215 Economic Botany. 3 hrs
A study of plants useful to man, especially those which 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.

BIO 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 BIO 105 or equivalent. Cannot be taken concurrently with ZOO 222 except by department permission.

BIO 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.

BIO 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 as long as different topics are studied.
Prereq: Department permission.

BOT 354 Trees and Shrubs. 3 hrs
A taxonomic field course on identification of native trees and shrubs in winter and summer conditions. Counts as taxonomic field course.
Prereq: BIO 205 or BOT 221.

BOT 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 as long as different topics are studied.
Prereq: Department permission.

BOT 387 Cooperative Education. 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 (BOT 387 and BOT 487) alternated with full-
time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.

Prereq: Junior standing.

BOT 404 Mycology.

A lecture-laboratory course on the study of molds, rusts, mildews, edible and poisonous mushrooms, and other fungi. Their life history, economic importance, method of identification, and preservation are considered.

Prereq: BOT 221.

BOT 412 Plant Anatomy.

A basic lecture-laboratory course in plant histology emphasizing recognition of primary and secondary tissues as variously combined in root, stem, leaf, and flower of a wide variety of representative seed plants.

Prereq: BOT 221.

BOT 442 Plant Physiology.

A detailed study of major plant functions with emphasis on growth and development presented by lecture, demonstration, and experimentation in laboratory and greenhouse.

Prereq: BOT 221; CHM 270, 271 or equivalent; and BIO 320.

BOT 446 Medical Mycology.

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: MIC 328 or MIC 329 or BOT 404.

BOT 450 Aquatic Tracheophyta.

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 taxonomic field course.

Prereq: BOT 221.

BOT 451 Freshwater Algae.

A survey of the freshwater algal divisions; their morphology, taxonomy, ecology, and economic importance. Lectures emphasize an evolutionary approach. Laboratory work stresses the identification of representative algal taxa. Class field collections are made. Counts as taxonomic field course.

Prereq: BOT 221.

BOT 453 Taxonomy and Ecology of Diatoms.

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 taxonomic field course.

Prereq: BOT 451 or department permission.

BOT 455 Systematic Botany.

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 taxonomic field course.

Prereq: BOT 221.

BOT 477/478/479 Special Topics.

An examination of topics in botany not covered in other departmental offerings. Students may elect this course more than once as long as different topics are studied.

Prereq: Department permission.

BOT 487 Cooperative Education.

Four or six months of full-time employment at an industrial firm or laboratory especially chosen for imparting a practical educational experience in botany or technology. The program consists of two work experiences (BOT 387 and BOT 487) alternated with full-time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.

Prereq: BOT 387.

BOT 497/498/499 Independent Study.

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

BIO 205 Field Biology.

4 hrs

(See Biology Courses.)

ESC 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 as long as different topics are studied.

Prereq: Department permission.

ESC 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 as long as different topics are studied.

Prereq: Department permission.

ESC 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 ESC 303.

ESC 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 field work. Concluding course in the elementary science sequence.

ESC 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 as long as different topics are studied.

Prereq: Department permission.

ESC 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 as long as different topics are studied.

Prereq: Department permission.

MICROBIOLOGY COURSES

MIC 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 as long as different topics are studied.

Prereq: Department permission.

MIC 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 as long as different topics are studied.

Prereq: Department permission.
MIC 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 elective on general biology concentration or biology minor.
Prereq: BOT 105 and CHM 120, or ZOO 201, 202; or department permission.

MIC 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 MIC 328.
Prereq: BOT 221 or ZOO 222 or ZOO 326 and CHM 270, 271. A biochemistry course recommended.

MIC 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: MIC 328 or MIC 329.

MIC 335 Immunology and Serology Laboratory. 2 hrs
A laboratory course designed to accompany or follow MIC 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 CLS 335.
Prereq: MIC 333. (May be taken concurrently.)

MIC 340 Basic Virology. 3 hrs
A basic lecture and laboratory course on physico-chemical-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: MIC 329 and an organic chemistry course.

MIC 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 as long as different topics are studied.
Prereq: Department permission.

MIC 387 Cooperative Education. 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 (MIC 387 and MIC 487) alternated with full-time attendance at the University. Graded on a credit/no credit basis.
Prereq: MIC 329 and junior standing. Admission to program by application only.

MIC 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 CLS 432.
Prereq: MIC 329 or department permission.

MIC 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: BOT 221 or ZOO 222, and MIC 329 or equivalent.

MIC 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.
Prereq: MIC 329; CHM 270, 271; CHM 351 and CHM 453 recommended.

MIC 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: MIC 328 or MIC 329.

MIC 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: MIC 329, MIC 444, and a biochemistry course.

MIC 454 Molecular Biology of Bacteria and Viruses. 3 hrs
A lecture course on ultra-structure 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: MIC 329 or equivalent, BIO 301, a course in physiology, and a course in organic chemistry lecture and laboratory. BIO 542 recommended.

MIC 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 as long as different topics are studied.
Prereq: Department permission.

MIC 487 Cooperative Education. 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 (MIC 387 and MIC 487) alternated with full-time attendance at the University. Graded on a credit/no credit basis.
Prereq: MIC 387.

MIC 497/498/499 Independent Study. 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
ZOO 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 as long as different topics are studied.
Prereq: Department permission.

ZOO 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 on nursing and biology programs counts only if ZOO 201 and ZOO 202 are taken consecutively. 
Prereq: CHM 120.

ZOO 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: CHM 120 and ZOO 201.

ZOO 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 BIO 105 or equivalent. Cannot be taken concurrently with BOT 221 except by department permission.

ZOO 223 Field Bird Study. 1 hr
Identification of birds and their songs and nesting habits, studied in laboratory and field.

ZOO 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 as long as different topics are studied.
Prereq: Department permission.

ZOO 300 Natural History of Invertebrates. 3 hrs
A field course in the recognition, collection, identification, and preserving of common invertebrates of Michigan, exclusive of the insects, with emphasis on their natural history, ecology, and economic importance. Counts as taxonomic field course.
Prereq: ZOO 222.

ZOO 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. Field work will emphasize accurate observation and permanent recording of original data on local species. Counts as taxonomic field course.
Prereq: ZOO 222.

ZOO 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: BIO 105 and department permission.

ZOO 318 Laboratory in Human Anatomy. 2 hrs
Laboratory with projection and dissection of human cadaver by students. Designed to accompany lecture material in PED 200 Anatomy and Physiology.
Coreq: PED 200.

ZOO 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: ZOO 222.

ZOO 326 Human Physiology. 3 hrs
A study of the functioning of the human body. Lecture, laboratory, and demonstration. Not open to biology majors, but can be taken on a biology minor in which case ZOO 222 is prerequisite. Credit will be given for both ZOO 326 and ZOO 427 on the minor.
Prereq: BIO 105. Open to Dietetics and Occupational Therapy majors, and biology minors.

ZOO 366 Economic Zoology. 2 hrs
A survey of the species and breeds of animals that are used as beasts of burden; supply food, clothing, sport, and recreation; or serve as pets. A lecture course.
Prereq: One course in college zoology.

ZOO 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 as long as different topics are studied.
Prereq: Department permission.

ZOO 387 Cooperative Education. 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 (ZOO 387 and ZOO 487) alternated with full-time attendance at the University. Admission to program by application only. Graded on a credit/no credit basis.
Prereq: Junior standing.

ZOO 404 Mammalian Histology. 3 hrs
A lecture/laboratory course dealing with the structure and properties of mammalian organs and their component tissues.
Prereq: ZOO 222.

ZOO 417 Neuroanatomy. 3 hrs
A lecture/laboratory course concerned with the study of the human nervous system, lesions, and resulting disabilities.
Prereq: ZOO 317 and department permission.

ZOO 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: ZOO 222.

ZOO 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: ZOO 222.

ZOO 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: ZOO 222.

ZOO 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.
Prereq: ZOO 222, BIO 320; CHM 270, 271; or department permission. Physics is desirable.
ZOO 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: ZOO 222.

ZOO 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 the shark and cat. Three one-hour lectures and two two-hour laboratory periods per week.
Prereq: ZOO 222.

ZOO 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.
Prereq: ZOO 222; CHM 270, 271; BIO 320. ZOO 430 is recommended.

ZOO 462 Parasitology. 3 hrs
A survey of animal parasites that affect other animals including the human. Lecture and laboratory.
Prereq: ZOO 222.

ZOO 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: ZOO 222 and one of the following: BIO 420, ZOO 310, or ZOO 431.

ZOO 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 as long as different topics are studied.
Prereq: Department permission.

ZOO 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: ZOO 222.

ZOO 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: ZOO 222. ZOO 421 recommended.

ZOO 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: ZOO 222 and one of the following: ZOO 310, BIO 420, or ZOO 431.

ZOO 487 Cooperative Education. 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 (ZOO 387 and ZOO 487) alternated with full-time attendance at the University. Admittance to program by application only. Graded on a credit/no credit basis.
Prereq: ZOO 387.

ZOO 497/498/499 Independent Study. 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

Judith T. Levy
Department Head
225 Mark Jefferson
487-0106


Associate Professors: Ellene Tratras Contis, Arthur S. Howard, Maria C. Milletti, Ross S. Nord, Ralph R. Powell, Wade J. Torquist, Jerry R. Williamson

Assistant Professors: Deborah Heyl-Clegg, Donald M. Snyder, Jose C. Vites

The Chemistry department offers both professional and general level programs in chemistry and biochemistry, and a biochemistry/toxicology program. The department also administers pre-professional programs in dentistry, mortuary science, and pharmacy. Although the pre-medicine 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 spectrometers; gas and high-performance liquid chromatographs; X-ray diffraction and fluorescence instrumentation; preparative and analytical ultracentrifuges; fluorometers; 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 NMR spectrometer. In addition, a computer laboratory with 24 IBM AT-compatible computers, and specialized facilities and equipment for radiochemistry and cell culture are available.

The Chemistry department offers 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 MS 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:
Major:
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
Biochemistry

Pre-Professional Programs:
Pre-Dentistry
Pre-Medicine
Pre-Mortuary Science
Pre-Pharmacy

Advising for students desiring to pursue a major or curriculum 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: Ronald M. Scott
Biochemistry/toxicology: Michael Brabec
Pre-Dentistry (including dental hygiene and dental assisting programs): John M. Sullivan
Pre-Mortuary Science: Elva Mae Nicholson
Pre-Pharmacy: Ralph Powell
Cooperative education in chemistry: Elva Mae Nicholson

ACADEMIC MAJORS

PROFESSIONAL CHEMISTRY CURRICULUM

This curriculum provides the necessary background for those planning to become professional chemists. With appropriate electives, it meets the requirements established by the American Chemical Society. Students successfully completing the curriculum are prepared to enter technical positions in industrial and governmental research, or to undertake graduate study in chemistry. The program includes a group minor comprised 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 semester 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 basic studies and elective courses totaling 124 semester hours are required to complete a degree.

Sem hours
Science and mathematics .............................................. 69-74

1. Required courses .................................................. 65
   CHM 121-124 General Chemistry I-II with labs ............. 8
   CHM 281 Quantitative Analysis .................................... 4
   CHM 363 Chemical Thermodynamics ............................. 2
   CHM 364 Chemical Kinetics ....................................... 2
   CHM 365 Physical Chemistry Laboratory ....................... 2
   CHM 371-373 Organic Chemistry I-II with lab ............ 8
   CHM 432 Advanced Inorganic Chemistry ...................... 3
   CHM 433 Inorganic-Organic Synthesis Laboratory ........... 2
   CHM 464 Quantum Chemistry ...................................... 2
   CHM 481 Instrumental Analysis ................................... 4
   MTH 120-121 Calculus I-II ....................................... 8
   (Students deficient in high school preparation must take
   MTH 105 College Algebra before entering calculus.)
   MTH 122 Elementary Linear Algebra ............................ 3
   MTH 223 Multivariable Calculus .................................. 4
   MTH 325 Differential Equations .................................. 3
   PHY 223 Mechanics, Sound, and Heat ......................... 5
   PHY 224 Electricity and Light .................................... 5

2. Electives .................................................................. 4-9

Choose two advanced courses from the following (at least one must be in the Chemistry department):

Pre-Professional Programs:
Pre-Dentistry
Pre-Medicine
Pre-Mortuary Science
Pre-Pharmacy
totaling 124 semester hours are required to complete a degree.

2. Electives ......................................................... 7

Additional basic studies and elective courses are listed below. Additional basic studies and elective courses totaling 124 semester hours are required to complete a degree.

Sem hours

Science and mathematics ........................................... 78

1. Required courses ................................................. 71
   CHM 121-124 General Chemistry I-II with lab .......... 8
   CHM 281 Quantitative Analysis ............................... 4
   CHM 363 Chemical Thermodynamics .......................... 2
   CHM 364 Chemical Kinetics .................................... 2
   CHM 365 Physical Chemistry Laboratory .................... 2
   CHM 371-373 Organic Chemistry I-II with lab .......... 8
   CHM 451-452 Biochemistry I-II ............................... 6
   CHM 453 Biochemistry Laboratory ............................ 2
   CHM 464 Quantum Chemistry .................................. 2
   BOT 221 General Botany or ZOO 222 General Zoology .... 4
   BIO 301 Genetics ................................................. 3
   MTH 120-121 Calculus I-II .................................... 8
   MTH 122 Elementary Linear Algebra .......................... 3
   MTH 223 Multivariable Calculus ............................. 4
   MTH 325 Differential Equations ............................... 3
   PHY 223 Mechanics, Sound, and Heat ....................... 5
   PHY 224 Electricity and Light ................................ 5

2. Electives .......................................................... 7
   Choose four credits from the following:
   CHM 411-412 Toxicology I-II, CHM 413 Toxicology Labora-
   tory, CHM 414 Regulatory Toxicology, CHM 433
   Inorganic-Organic Synthesis Laboratory, CHM 475
   Introduction to Polymer Chemistry, CHM 477/478/479
   Special Topics, CHM 480 Computer/Instrument Interfacing, CHM 481 Instrumental Analysis, CHM
   485 Introduction to Radiotracer Techniques, CHM
   487/488/489 Cooperative Education, CHM 497/498/499
   Undergraduate Research in Chemistry, CHM 553
   Enzymology, CHM 555 Neurochemistry, CHM 572
   Spectrometric Organic Structure Determination

Choose three credits from any courses in biology numbered
300 or above.

GENERAL BIOCHEMISTRY CURRICULUM

This curriculum is designed for students with an interest in
biochemistry but who require a less extensive background. It is often
selected by students in pre-medical and pre-dental programs.

The program includes a group minor comprised of the re-
quired 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 basic studies and elective courses
totaling 124 semester hours are required to complete a degree.

Sem hours

Science and mathematics ........................................... 55-56

1. Required courses ................................................. 50-51
   CHM 121-124 General Chemistry I-II with lab .......... 8
   CHM 261 Introduction to Physical Chemistry .......... 3
   CHM 270-271 Organic Chemistry with lab .......... 5
   CHM 371-373 Organic Chemistry I-II with lab .......... 8
   CHM 440 Quantum Mechanics ................................. 4
   CHM 485 Introduction to Radiotracer Techniques .... 8
   CHM 487/488/489 Cooperative Education .......... 5
   CHM 497/498/499 Undergraduate Research in Chemistry .... 6
   CHM 553 Enzymology ........................................... 4
   MTH 120-121 Calculus I-II .................................. 8
   PHY 223 Mechanics, Sound, and Heat .................... 5
   PHY 222/224 Electricity and Light ......................... 4

2. Electives .......................................................... 5
   Choose five credits from any biology courses numbered
300 or above.

BIOCHEMISTRY/TOXICOLOGY CURRICULUM

The biochemistry/toxicology curriculum is designed to
prepare students for employment in laboratories doing toxico-
logy testing in such fields as pharmaceutical chemistry, environ-
mental studies, occupational health and safety, and forensic toxico-
logy. This curriculum also provides preparation for students antici-
pating graduate study and a research career in biochemistry.

The professional biochemistry curriculum provides prepara-
tion for students anticipating graduate study or a research career in
biochemistry. The program includes a group minor comprised of the re-
quired 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 basic studies and elective courses
totaling 124 semester hours are required to complete a degree.

Sem hours

Science and mathematics ........................................... 73-78

Required courses
   CHM 121-124 General Chemistry I-II with lab .......... 8
   CHM 261 Introduction to Physical Chemistry .......... 3
   CHM 281 Quantitative Analysis ............................... 4
   CHM 451-453 Biochemistry I-II with lab .......... 8
   CHM 553 Enzymology ........................................... 4
   CHM 371-373 Organic Chemistry I-II with lab .......... 8
   CHM 381 Instrumentation for Chemical Technology .... 8
   CHM 440 Quantum Mechanics ................................. 4
   CHM 485 Introduction to Radiotracer Techniques .... 8
   CHM 487/488/489 Cooperative Education .......... 5
   CHM 497/498/499 Undergraduate Research in Chemistry .... 6
   CHM 553 Enzymology ........................................... 8
   CHM 440 Quantum Mechanics ................................. 4
   CHM 485 Introduction to Radiotracer Techniques .... 8
   CHM 487/488/489 Cooperative Education .......... 5
   CHM 497/498/499 Undergraduate Research in Chemistry .... 6
   CHM 553 Enzymology ........................................... 8
BIO 320 Introduction to Cell Physiology or ZOO 326
Human Physiology ....................................... 3-4
ZOO 222 General Zoology .................................. 4
ZOO 404 Mammalian Histology ......................... 3
ZOO 431 Comparative Anatomy of Vertebrates or
ZOO 317 Human Gross Anatomy ....................... 4-5
MTH 120 Calculus I ......................................... 4
PHY 223 Mechanics, Sound, and Heat .................. 5
PHY 222/224 Electricity and Light ....................... 4-5
Two toxicology classes numbered above 413, or one such
course and enrollment in a toxicology cooperative
education project (CHM 487/488/489) ................... 4-6
A statistics course (MTH 270 Elementary Statistics I or PSY
205 Quantitative Methods in Psychology) .............. 3

GENERAL CHEMISTRY MAJOR

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.

Major in general chemistry .................................. 30

1. Required courses ........................................... 25
   CHM 121-124 General Chemistry I-II with labs ........ 8
   *CHM 261 Introduction to Physical Chemistry .......... 3
   CHM 281 Quantitative Analysis ........................... 4
   CHM 371-373 Organic Chemistry I-II with lab .......... 8
   CHM 381 Instrumentation for Chemical Technology ..... 2
   *Prerequisites for CHM 261 include MTH 120 Calculus I, PHY
   223 Mechanics, Sound, and Heat, and either PHY 222/PHY224
   Electricity and Light, a total of 13-14 semester hours, all of
   which are required for a chemistry major.

2. Electives ...................................................... 5
   - Choose five credits from 300- and 400-level courses in
     chemistry.

ACADEMIC MINORS

CHEMISTRY MINOR

Minor in chemistry ........................................... 20

1. Required courses ........................................... 17
   CHM 121-124 General Chemistry I-II with labs ........ 8
   CHM 270-271 Organic Chemistry with lab ............... 5
   CHM 281 Quantitative Analysis ........................... 4
   (The CHM 371-373 Organic Chemistry sequence may be
   substituted for CHM 270-271 Organic Chemistry if a
   stronger background is desired.)

2. Electives ...................................................... 3
   - Choose from courses numbered above 200 in chemistry

BIOCHEMISTRY MINOR

Minor in biochemistry ...................................... 22

Required courses
   CHM 121-124 General Chemistry I-II with labs ........ 8
   CHM 270-271 Organic Chemistry with lab ............... 5
   CHM 281 Quantitative Analysis ........................... 4
   CHM 351 Introductory Biochemistry ...................... 3
   CHM 453 Biochemistry Laboratory ........................ 2

(The CHM 451-452 Biochemistry I-II sequence may be
substituted for CHM 351 Introductory Biochemistry if
a stronger background is desired.)

TEACHING MAJOR

CHEMISTRY MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context
of other program requirements, qualifies the student for recommenda­
tion for certification for the Michigan Department of Education
Secondary Provisional Certificate endorsed in chemistry, certification
code "DC," and, depending on the minor selected, an addi­
tional endorsement. The certification test covering this field is #18,
"Chemistry."

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. MTH 120 Calculus I (4)*
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. PHY 223 Mechanics, Sound, and Heat (5)
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. CHM 121-122 General Chemistry I with lab (4)*
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ........................................... 52

Teaching Major

See note "a" above for courses applicable to both Basic Stud­
ies and the major.

CHM 123-124 General Chemistry II with lab (4)
CHM 261 Introduction to Physical Chemistry (3)
CHM 281 Quantitative Analysis (4)
CHM 351 Introductory Biochemistry (3)
CHM 371-373 Organic Chemistry with labs (8)
CHM 381 Instrumentation for Chemical Technology (2)

Four credits from 300- and 400-level courses in chemistry
One of:
   PHY 222 Electricity and Light (4)
   PHY 224 Electricity and Light (5)

Additional hours, such as to total 116 taken in physics, biology,
and earth science and including at least one course from
each of physics, biology, and earth science (7)

Minor

Select a minor from the approved list (see p. 230)

Credit hours in minor: ............................................... 20

Subtotal, Major and minor: ......................................... 59

Professional Studies

100 clock hours of approved pre-student teaching field experi­
ences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)
The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
PHY 325 Methods of Teaching the Physical Sciences (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ................................ 34

Total credit hours required, with 20-hour minor: ............. 145

- **Course required for and applicable to major:**
- **Prerequisite for another course in program:**
- **Could be less, depending on the minor and the possible application of basic studies courses to the minor.**

**TEACHING MINOR**

**CHEMISTRY MINOR**

**SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY**

**TEACHER CERTIFICATION**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in chemistry, certification code “DC.” The certification test covering this field is #18, “Chemistry.”
- CHM 121-124 General Chemistry I-II with labs (8)
- CHM 270-271 Organic Chemistry with lab (5)
- CHM 281 Quantitative Analysis (4)

(The CHM 371-373 Organic Chemistry sequence may be substituted for CHM 270-271 Organic Chemistry with lab if a stronger background is desired.)

7 hours in chemistry from courses numbered above 200.
In some programs, CHM 121-122 may be taken to satisfy Basic Studies Area II requirements.

24 hours (including hours satisfied in Basic Studies)

**PRE-PROFESSIONAL PROGRAMS**

**PRE-DENTISTRY**

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

The majority of pre-dental students complete four years of undergraduate work, earning a BS 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:**
- CHM 121-124 General Chemistry I-II with labs, CHM 371-373 Organic Chemistry I-II with lab

**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 (CHM 119 Fundamentals of Chemistry), psychology, sociology, and political science, plus electives in social science, natural science, and humanities, generally will be transferable. More specific descriptions of requirements should be obtained by writing to the schools in question since requirements vary from school to school.

**PRE-MORTUARY SCIENCE**

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

- CHM 121-124 General Chemistry I and II with labs
- BIO 105 Biology and the Human Species
- MTH 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; SOC 105 Introductory Sociology, SOC 311 Social Gerontology)
- Counseling (G&C 450 An Introduction; Counseling Concepts and Skills, with permission)
- First aid (HED 210 Standard American Red Cross First Aid)
- Public speaking (CTA 121 or CTA 124 Fundamentals of Speech, CTA 225 Listening Behavior, CTA 226 Non-Verbal Communication, CTA 227 Interpersonal Communication)

**PRE-PHARMACY**

Two years of college work (60 transferable semester 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:**
- CHM 121-124 General Chemistry I-II with labs
- CHM 371-373 Organic Chemistry I-II with lab
- One semester of biology with lab (some schools require additional courses)
- MTH 120 Calculus I
- ENG 120/121 English Composition plus two social science courses and two humanities courses (two foreign lan-
guage courses may be substituted for the humanities courses).

CHEMISTRY COURSES

CHM 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 on major or minor. Lecture: two hours per week. Laboratory: two hours per week.
Prereq: PHY 100.

CHM 105 Survey of Chemistry. 5 hrs
A survey course for non-science majors covering inorganic, organic, and biological chemistry with special emphasis on nutritional, textile, and household applications. No credit for both CHM 105 and CHM 119 or CHM 120. Does not count on major or minor. Lecture: three hours per week. Laboratory: four hours per week.

CHM 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 non-science majors. No previous mathematics or chemistry is required. CHM 116 may be taken concurrently to satisfy the laboratory science requirement. Does not count on major or minor. Lecture: three hours per week.

CHM 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 CHM 115 to satisfy the science requirement. Does not count on major or minor. Laboratory: two hours per week. Coreq: CHM 115.

CHM 119 Fundamentals of Chemistry. 4 hrs
A study of the principles of chemistry, designed for students who have had no prior chemistry. This course may be used to satisfy the chemistry prerequisite for CHM 121. Does not count on major or minor. Lecture: three hours per week. Laboratory: two hours per week. Coreq: CHM 115.

CHM 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 CHM 119; two years of high school algebra or MTH 105. Coreq: CHM 122.

CHM 122 General Chemistry I Laboratory. 1 hr
The laboratory class to accompany CHM 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: CHM 121.

CHM 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. Prereq: CHM 121 and CHM 122. Coreq: CHM 124.

CHM 124 General Chemistry II Laboratory. 1 hr
The techniques learned in CHM 122 are reemphasized and supplemented. Laboratory: three hours per week. Coreq: CHM 123.

CHM 134 Honors General Chemistry II. 4 hrs
A continuation of CHM 121, 122. General Chemistry for students of superior ability. The sequence of CHM 121, 122, and 134 can constitute the customary year of general chemistry. Lecture: three hours per week. Laboratory: three hours per week. Prereq: CHM 121, 122 and consent of Honors Committee.

CHM 177/178/179 Special Topics. 1/2/3 hrs
Covers specific chemical topics not discussed in any regular, introductory chemistry course. Prereq: Department permission.

CHM 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: CHM 123-124, or CHM 134.

CHM 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: CHM 123-124, or CHM 134; PHY 221/222.

CHM 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: CHM 241.

CHM 261 Introduction to Physical Chemistry. 3 hrs
Familiarizes the student with chemistry applications of thermodynamics, kinetics, and spectroscopy. Can be used as a preparatory course for the professional major's physical chemistry sequence (CHM 363, 364, 365, 464), although it will not count for credit toward either the professional chemistry or professional biochemistry curricula. Lecture: three hours per week. Prereq: CHM 123-124, or CHM 134, MTH 120, PHY 223. Co- or prereq: PHY 221/222; organic chemistry and quantitative analysis recommended.

CHM 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 CHM 371 and 372. Lecture: four hours per week. Prereq: CHM 123-124, or CHM 134.

CHM 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: CHM 270.

CHM 277/278/279 Special Topics. 1/2/3 hrs
Covers specific chemical topics not discussed in any regular chemistry course at this level. Prereq: One 100-level chemistry course and department permission.
CHM 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: CHM 123-124, or CHM 134.

CHM 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: CHM 123-124, or CHM 134, and consent of Honors Committee.

CHM 287/288/289 Cooperative Education. 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: CHM 123-124, or CHM 134. Admission by application only. Sophomore standing.

CHM 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.

CHM 311 Introduction to Food Toxicology. 1 hr
Introduction to the terminology and methods of toxicology with special emphasis on food and nutritional toxicology. The regulatory role of the federal/state government in this area also is examined. Intended for students in dietetics and foods/nutrition programs. Cannot be applied toward chemistry degree programs. Lecture: one hour per week. 
Prereq: A course in organic chemistry.

CHM 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: CHM 123-124, or CHM 134; CHM 270.

CHM 351 Introductory Biochemistry. 3 hrs
Deals with the structure, function, and metabolism of biologically significant compounds and the chemistry of physiological processes. Not open to those with credit in CHM 451. Lecture: three hours per week. 
Prereq: CHM 270 or CHM 372, or equivalent.

CHM 363 Chemical Thermodynamics. 2 hrs
The principles of thermodynamics and the equilibrium properties of systems. Lecture: two hours per week. 
Prereq: CHM 281, PHY 223, PHY 224, and MTH 223. Students with less than a "B" average in the prerequisites should take CHM 261 first.

CHM 364 Chemical Kinetics. 2 hrs
The study of rates of chemical reactions and transport processes. Lecture: two hours per week. 
Prereq: CHM 363. Pre- or coreq: MTH 325.

CHM 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. 
Prereq or coreq: CHM 364.

CHM 371 Organic Chemistry I. 3 hrs
The first 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 CHM 270. 
Prereq: CHM 123-124, or CHM 134.

CHM 372 Organic Chemistry II. 3 hrs
A continuation of CHM 371. CHM 371 and 372 constitute the customary year of foundation/lecture work in organic chemistry. Lecture: three hours per week. 
Prereq: CHM 371.

CHM 373 Organic Chemistry Laboratory. 2 hrs
Covers the basic techniques involved in organic chemistry. Laboratory: six hours per week. 
Prereq or coreq: CHM 372 and consent of Honors Committee.

CHM 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.

CHM 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: CHM 281, CHM 270 or CHM 372, and CHM 271 or CHM 373, or equivalent.

CHM 387/388/389 Cooperative Education. 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.

CHM 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.

CHM 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: CHM 270 or CHM 372.

CHM 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. 

CHM 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 practi-
cal aspects of toxicological procedures will be discussed. Lecture: one hour per week. Laboratory: three hours per week.

Prereq: CHM 411. CHM 281 recommended.

CHM 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: CHM 270 or CHM 372.

CHM 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: CHM 123-124, or CHM 134. A course in organic chemistry is strongly recommended.

CHM 416 Advanced Topics in Toxicology. 2 hrs
This course provides a broadening and strengthening of the background of toxicology students in areas which are covered only minimally in the introductory sequence but are of critical importance to toxicologists, particularly those planning careers in industrial or pharmacological areas. Lecture: two hours per week.

Prereq: CHM 123-124, or CHM 134. A course in organic chemistry is strongly recommended.

CHM 419 Special Topics. 1/2/3 hrs
Covers specific chemical topics not discussed in any regular chemistry courses at this level.

Prereq: Department permission.

CHM 480 Computer/Instrument Interfacing. 2 hrs
Introduction to the techniques of interfacing the microcomputer to various laboratory analytical instruments. Lecture: one hour per week. Laboratory: three hours per week.

Prereq: CHM 281 and CHM 381 or CHM 481 or department permission.

CHM 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: CHM 281 and CHM 365. Prereq or coreq: CHM 464.

CHM 484 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: CHM 123-124, or CHM 134, and either CHM 281 or one science laboratory course above the 200 level, or department permission.

CHM 487/488/489 Cooperative Education. 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.

Prereq: Department permission.

Graduate courses:

The following graduate level chemistry courses are open to senior chemistry students:

CHM 501 Computer Applications in Chemistry
CHM 511 Introduction to Industrial Hygiene
CHM 512 Industrial Hygiene Laboratory
CHM 513 Industrial and Environmental Chemistry
CHM 553 Enzymology
CHM 555 Neurochemistry
CHM 561 Quantum Chemistry and Spectroscopy
CHM 562 Statistical Mechanics and Chemical Kinetics
CHM 564 Physical-Chemical Characterization of Polymers
CHM 565 Nuclear Chemistry
CHM 571 Advanced Organic Chemistry
CHM 572 Spectrometric Organic Structure Determination
CHM 574 Advanced Organic Chemistry Topics
CHM 590/591/592 Special Topics

Please see the Graduate Catalog for course descriptions.
COMMUNICATION AND THEATRE ARTS

Dennis M. Beagen
Department Head
124 Quirk Building
487-3131

Professors: Henry B. Aldridge, Dennis M. Beagen, P. George Bird, Harry W. Bowen, Gail W. Compton, Gary L. Evans, James W. Gousseff, Lucy A. Liggett, Annette Martin, Sally R. McCracken, Thomas J. Murray, Kenneth W. Stevens, Katherine Strand-Evens
Associate Professors: Geoffrey D. Hammill, James A. Robinson, Karen Smith-Meyer, Mary Ann Watson, Patricia M. Zimmer
Assistant Professors: Wallace A. Bridges, John J. Capecci, John Cooper, Theresa Heck Seibert, Kathleen H. Stacey, Michael Tew
Instructor: 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 (Options: interpersonal communication, organizational communication, speech communication)
- Communication for elementary and special education-elementary
- Comprehensive major in communication and theatre arts (Areas of concentration: communication, interpretation/performance studies, speech improvement, telecommunications and film, theatre arts, drama/theatre for the young)
- Interdisciplinary major in children’s literature and drama/theatre for the young for elementary and special education-elementary (administered by the Teacher Education department)
- 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
- Comprehensive major and minor for elementary and secondary education: Michael Tew, Patricia Zimmer
- Communication technology curriculum: Henry B. Aldridge
- Comprehensive major and minor in communication and theatre arts: John Capecci
- 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
- Theatre arts major and minor: Katherine Strand-Evens

Graduate study leads to a Master of Arts in communication; a Master of Arts in drama/theatre for the young; 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.

ACADEMIC MAJORS

ARTS MANAGEMENT CURRICULUM

The Arts Management curriculum provides career training and practical experience for those who have a passion for the arts and whose talents are in the field of administration and/or promotion. The arts manager not only must develop a variety of managing skills but also must maintain a high degree of sensitivity to aesthetics.

Students are provided a broad background in all of the arts with the opportunity to study a specific art in more depth. In addition, 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.

Combined with the training in the arts is the development of skills in accounting, advertising, personnel management, labor relations, and various other areas of business through a program of study in management and marketing. Graduates are equipped to pursue further study in arts administration.

Because the arts management field is relatively new and changing rapidly, it is to the student's advantage to maintain regular contact with an adviser during the entire course of the 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 as follows: the basic studies requirements, arts management major, a management or marketing minor (see College of Business), and two internships.

**Major in Arts Management**

<table>
<thead>
<tr>
<th>Sem hours</th>
<th>Required courses</th>
<th>23</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arts fundamentals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CTA 150 Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CTA 155 Producing Theatre</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FA 107/108 Art History Survey I-II</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>MUS 107 Music Appreciation</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>PEG 161 Modern Dance</td>
<td>1</td>
</tr>
<tr>
<td>Minor in management or marketing</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

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.

Practicums are available to the junior-senior level student who has a minimum GPA of 2.5 in the arts management curriculum.

**COMMUNICATION MAJOR**

Sem hours

<table>
<thead>
<tr>
<th>Major in communication</th>
<th>35-36</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required courses</td>
<td>2-3</td>
</tr>
<tr>
<td>Foundation level</td>
<td></td>
</tr>
<tr>
<td>CTA 121/124 Fundamentals of Speech</td>
<td>2-3</td>
</tr>
<tr>
<td>2. Restricted electives</td>
<td>18</td>
</tr>
<tr>
<td>Choose two courses from the following:</td>
<td></td>
</tr>
<tr>
<td>CTA 224 Public Speaking, CTA 225 Listening Behavior, CTA 226 Non-Verbal Communication, CTA 227 Interpersonal Communication</td>
<td>6</td>
</tr>
<tr>
<td>Intermediate level</td>
<td></td>
</tr>
<tr>
<td>Choose two courses from the following:</td>
<td></td>
</tr>
<tr>
<td>CTA 350 Persuasion, CTA 354 Organizational Communication, CTA 356 Argumentation and Debate, CTA 359 Small Group Communication</td>
<td>6</td>
</tr>
<tr>
<td>Advanced level</td>
<td></td>
</tr>
<tr>
<td>Choose two courses from the following:</td>
<td></td>
</tr>
</tbody>
</table>

CTA 440 Survey of Public Address, CTA 460 Theories of Speech Criticism, CTA 475 Research in Speech Communication, CTA 485 Theories of Speech Communication Behavior 6

**Communications Major Options**

Sem hours

<table>
<thead>
<tr>
<th>Communication option</th>
<th>0-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required courses</td>
<td></td>
</tr>
<tr>
<td>Foundation level</td>
<td></td>
</tr>
<tr>
<td>CTA 131 Introduction to Audio Production and Direction</td>
<td>2</td>
</tr>
<tr>
<td>CTA 132 Introduction to Video Production and Direction</td>
<td>2</td>
</tr>
<tr>
<td>Intermediate level</td>
<td></td>
</tr>
<tr>
<td>Choose one course from the following:</td>
<td></td>
</tr>
<tr>
<td>CTA 166/266/366/466 Forensics</td>
<td></td>
</tr>
</tbody>
</table>

Choose one of the following:

- **Interpersonal Communication option** 12-16

- **Organizational Communication option** 12-16


Speecch communication option 12-16

Choose 12-16 additional credits from the following:


Substitution options: With department permission, ten semester hours of coursework in telecommunications or interpretation/performance studies may be substituted to fulfill the credit requirement for the major option in speech communication.

Telecommunications 13

<table>
<thead>
<tr>
<th>Required courses</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTA 130 Introduction to Telecommunications and Film</td>
<td>3</td>
</tr>
<tr>
<td>CTA 131 Introduction to Audio Production and Direction</td>
<td>2</td>
</tr>
<tr>
<td>CTA 132 Introduction to Video Production and Direction</td>
<td>2</td>
</tr>
</tbody>
</table>

Choose one course from the following:
Interpretation/performance studies ....................................... 10

2. Electives

1. Required

variety of communication skills with one or two areas of concentration

and present a copy of this plan to

COMMUNICATION

2.

communication and theatre

restricted electives above)

Choose at least one concentration (above) in consultation

with advising coordinator (semester hours here are in

addition to the restricted electives above)

3. Concentration .......................................................... 9-15

Choose at least one concentration (above) in consultation

with advising coordinator (semester hours here are in

addition to the restricted electives above)

4. Department electives .................................................. 3-10

Choose from any courses in areas outside the concentration

TELECOMMUNICATIONS AND FILM MAJOR

Sem hours

Major In telecommunications and film .......................... 30-34

1. Required foundation courses ....................................... 11

CTA 130 Introduction to Telecommunications and Film ....... 3

CTA 131 Introduction to Audio Production and Direction ..... 2

Choose one course from the following: .................................. 3

CTA 145 Introduction to Film Appreciation or

CTA 236 History and Criticism of Radio and

Television

Choose one of the following: ............................................. 1

CTA 165 Television Laboratory or CTA 169 Radio

Station WQBR

2. Restricted electives ...................................................... 16-18

Production courses ......................................................... 6

Choose six credits from the following (at least three credits

must be at the 300 or 400 level):

CTA 231 Audio Recording Techniques, CTA 236 History

and Criticism of Radio and Television, CTA 241 Radio-

Television-Film Announcing, CTA 331 Fundamentals of

Radio Production and Direction, CTA 332 Fundamentals of

Television Production and Direction, CTA 333 Fundamentals of

Film Production and Direction, CTA 334 Radio-Television

News, CTA 344 Continuity Writing for Radio-Television-Film, CTA 360 Dramatic

Composition

Theory courses ............................................................. 6
Choose six credits from the following (at least three credits must be the 400 level):
CTA 145 Introduction to Film Appreciation, CTA 236 History and Criticism of Radio and Television, CTA 335 Studies in Film, CTA 336 Studies in Telecommunications, CTA 445 Film Theory and Criticism, CTA 446 Contemporary Problems in Telecommunications, CTA 447 Radio-Television Station Management, CTA 479 Special Topics (must be approved by adviser)

Interdepartmental education .............................................................. 1-3
CTA 487/488/489 Internship, CTA 387/388/389 Cooperative Education

3. Electives .................................................................................. 3-5
Choose three credits from telecommunications and film and any two additional hours from communication and theatre arts (except CTA 121/124 Fundamentals of Speech) or journalism.

THEATRE ARTS MAJOR

Sem hours
Major in theatre arts ........................................................................ 30-32
1. Required courses ........................................................................ 23
CTA 150 Introduction to Theatre .................................................... 3
CTA 152 Technical Theatre: Scenery and Lighting ..................... 3
CTA 155 Producing Theatre ........................................................... 3
CTA 158 Fundamentals of Acting ................................................... 3
CTA 355 Play Direction ............................................................... 3
CTA 450 History of the Theatre to 1642 ..................................... 3
CTA 451 History of the Theatre: 1642 to the Present .................. 3
CTA 167 and either 267/367/467 Theatre Practice .................. 2

2. Restricted electives ...................................................................... 7-9
A minimum of five credits must be in courses beyond the 200 level. Choose at least seven credits from theatre arts courses (except CTA 106 Introduction to the Performing Arts, CTA 126 The Age of Shakespeare, CTA 153 Introduction to Technical Theatre: Costume and Make-up, CTA 555 Play Production—Junior/Senior High School) or from the following department area courses:
Drama/Theatre for the Young (CTA 322 Theatre for the Young or CTA 332 Improvising and Role-Play)
Oral Interpretation (CTA 314 Interpretation of Drama or CTA 410 Oral Interpretation of Shakespeare)
Telecommunications and Film (CTA 332 Fundamentals of Television Production and Direction or CTA 341 Radio-Television-Film Dramatic Performance)

INTERDISCIPLINARY MAJOR IN CHILDREN’S LITERATURE AND DRAMA/THEATRE FOR THE YOUNG

This major may be used for the Bachelor of Science or Bachelor of Arts degrees without teacher certification. For full details, see the English Language and Literature department.

INTERDISCIPLINARY MAJOR IN PUBLIC RELATIONS

Admission to the program will require a 2.8 GPA, which must be maintained in the major as well as in the minor selected. Admission is granted by the English department and Communication and Theatre Arts. Courses from both departments are offered as requirements and restricted electives. See the Department of English for program requirements.

ACADEMIC MINORS

COMMUNICATION MINOR

Sem hours
Minor in communication ............................................................. 20-21
1. Required course ................................................................. 2-3
Foundation level
CTA 121/124 Fundamentals of Speech .................................... 2-3
2. Restricted electives ............................................................ 18
Choose two courses from the following:
CTA 224 Public Speaking, CTA 225 Listening Behavior, CTA 226 Non-Verbal Communication, CTA 227 Interpersonal Communication

Intermediate level
Choose two courses from the following:
CTA 350 Persuasion, CTA 354 Organizational Communication, CTA 356 Argumentation and Debate, CTA 359 Small Group Communication

Advanced level
Choose two courses from the following:
CTA 440 Survey of Public Address, CTA 460 Theories of Speech Criticism, CTA 475 Research in Speech Communication, CTA 485 Theories of Speech Communication Behavior

Concentrations in telecommunications and interpretation/performance studies
With department permission, course work in telecommunications or interpretation/performance studies may be substituted to fulfill the credit requirement for the minor in communication.

Telecommunications and film ..................................................... 11
1. Required courses ................................................................. 7
CTA 130 Introduction to Telecommunications and Film .......... 3
CTA 131 Introduction to Audio Production and Direction .... 2
CTA 132 Introduction to Video Production and Direction ....... 2

2. Restricted electives ............................................................... 4
Choose one course from the following:
CTA 145 Introduction to Film Appreciation, CTA 241 Radio-Television-Film Announcing, CTA 331 Fundamentals of Radio Production and Direction, CTA 332 Fundamentals of Television Production and Direction, CTA 333 Fundamentals of Film Production and Direction, CTA 334 Radio-Television News, CTA 344 Continuity Writing for Radio-Television-Film

Choose one course from the following:
CTA 431 Advanced Radio Production and Direction, CTA 432 Advanced Television Production and Direction, CTA 433 Advanced Film Production and Direction, CTA 445 Film Theory and Criticism, CTA 446 Contemporary Problems in Telecommunications, CTA 447 Radio-Television Station Management

Interpretation/performance studies ......................................... 10
1. Required course ................................................................. 3
CTA 210 Interpretative Reading ............................................... 3

2. Restricted electives ............................................................... 7
Choose one course from the following:
CTA 311 Interpretation of Prose, CTA 314 Interpretation of Drama, CTA 324 Oral Interpretation of Literature for the Young, CTA 412 Oral Interpretation of Poetry
Choose either CTA 411 Advanced Problems in Interpretation or CTA 414 Development and Theory of Oral Interpretation

One semester hour of credit in an oral interpretation activity course (CTA 168/268/368/468)

Theatre Arts. Courses from both departments are offered as requirement is granted by the English department and Communication and
**COMPREHENSIVE MINOR IN COMMUNICATION AND THEATRE ARTS**

Sem hours

Comprehensive minor in communication and theatre arts ................................................................. 20-28

1. **Required core course** .................................................................................................................. 2-3
   CTA 121/124 Fundamentals of Speech

2. **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, theatre arts, drama/theatre for the young)
   See courses listed in comprehensive major in communications and theatre arts, page 79.

3. **Concentration** ......................................................................................................................... 6-9
   Choose at least one area of concentration. Minors applying for secondary certification must elect their concentration courses from either speech communication or theatre arts (semester hours here are in addition to the restricted electives above)

4. **Department electives** ............................................................................................................... 0-4
   Choose from any courses in areas outside the concentration

**DRAMA/THEATRE FOR THE YOUNG MINOR**

The undergraduate minor in drama/theatre for the young is designed to serve students wishing to prepare for a variety of careers—some already existing, others emerging—involving work with and for the young through drama and communication. The minor is useful in conjunction with many other minors and majors including elementary and secondary education, special education, language and literature, history and social studies, art, music, dance, social work, sociology, psychology, recreation, business management, guidance and counseling, library science, home economics, communication and theatre arts, family and child service, and gerontology.

It provides a strong base and, at the same time, flexibility is ensured through freedom in choosing from a wide range of electives.

Sem hours

**Minor in drama/theatre for the young** ......................................................................................... 20-21

1. **Required courses** .................................................................................................................... 14-15
   CTA 121/124 Fundamentals of Speech ................................................................. 2-3
   C TA 222 Drama and Play in Human Experience ................................................. 2-3
   CTA 322 Theatre for the Young .............................................................................. 3
   CTA 323 Improvising and Role-Play ............................................................................. 3
   CTA 324 Oral Interpretation of Literature for the Young ........................................ 3

2. **Electives** ................................................................................................................................... 5-6
   Choose five to six credits from the following:
   CTA 326 Developmental Drama/Theatre with the Handicapped, CTA 327 Plays for the Young, CTA 429 History and Theory of Developmental Drama/Theatre, CTA 504 Oral Interpretation of Literature and Language with the Young, CTA 522 TIE: Theatre-In-Education, CTA 523 Puppetry: Catalyst in Human Development, CTA 524 Developmental Drama/Theatre with Handicapped Persons, CTA 525 Developmental Drama/Theatre in Recreational Settings, CTA 528 Developmental Drama/Theatre in Religion, CTA 565 Studies in Drama/Theatre for the Young (all 500-level courses are available for undergraduate credit to qualified seniors)

   CTA 168/268/368/468 Interpretation
   CTA 377/378/379 Special Topics
   CTA 477/478/479 Special Topics (478 Touring to Young Audiences)

CTA 497/498/499 Independent Study
LIT 207 Introduction to Children’s Literature or any course in communication or any course in dramatic literature or any communication or theatre arts course

**MUSICAL THEATRE MINOR**

Sem hours

**Minor in musical theatre** ............................................................................................................. 24

1. **Required courses** .................................................................................................................... 6
   Choose four credits of applied music-voice and two semester hours of ensemble performance voice courses

2. **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:**
   CTA 155 Producing Theatre, CTA 258 Mime/Pantomime and Mask, CTA 457 Tryouts and Auditions, CTA 461 Musical Theatre Acting, CTA 462 Directors on Directing, CTA 463 The American Musical Stage: 1900 to 1940

**Dance:**
   PEG 155 Jazz I, PEG 159 Tap Dancing, PEG 160 Ballet, PEG 161 Modern Dance, PEG 255 Jazz II, PEG 261 Intermediate Modern Dance

**Music:**
   MUS 101 Music Theory I, MUS 104 Elements of Music, MUS 305 Keyboard Skills, MUS 326 Conducting

**TELECOMMUNICATIONS AND FILM MINOR**

Sem hours

**Minor in telecommunications and film** ....................................................................................... 24

1. **Required foundation courses** ................................................................................................ 7
   CTA 130 Introduction to Telecommunications and Film .................................................. 3
   CTA 131 Introduction to Audio Production and Direction .............................................. 2
   CTA 132 Introduction to Video Production and Direction .............................................. 2

2. **Restricted electives** .................................................................................................................. 13
   Choose one of the following:
   CTA 145 Introduction to Film Appreciation or CTA 236 History and Criticism of Radio and Television

   Choose one of the following:
   CTA 165 Television Laboratory or CTA 169 Radio Station WQBR
   CTA 150 Introduction to Theatre ......................................................................................... 3
   CTA 152 Technical Theatre: Scenery and Lighting ......................................................... 3
   CTA 153 Technical Theatre: Costumes ............................................................................ 3
   CTA 154 Technical Theatre: Lighting .............................................................................. 3
   CTA 155 Producing Theatre ............................................................................................... 3
   CTA 157 Stage Management .............................................................................................. 3
   CTA 158 Fundamentals of Acting ....................................................................................... 3
   CTA 159 Technical Theatre: Theatrical Properties .......................................................... 3
   CTA 160 Technical Theatre: Sound .................................................................................... 3
   CTA 161 Technical Theatre: Props ...................................................................................... 3
   CTA 162 Technical Theatre: Voice ...................................................................................... 3
   CTA 163 Technical Theatre: Stage Manager ...................................................................... 3
   CTA 164 Technical Theatre: Production Manager ............................................................ 3
   CTA 166 Technical Theatre: Stage Manager ...................................................................... 3
   CTA 167 Theatre Practice ..................................................................................................... 1

3. **Electives** .................................................................................................................................. 4
   Choose three credits from telecommunications and film and the remaining hours from communication and theatre arts (except CTA 121/124 Fundamentals of Speech) or journalism.

**THEATRE ARTS MINOR**

Sem hours

**Minor in theatre arts** ................................................................................................................... 20-24

1. **Required courses** .................................................................................................................... 19
   (may be bypassed by examination or interview for no credit)
   CTA 150 Introduction to Theatre ....................................................................................... 3
   CTA 152 Technical Theatre: Scenery and Lighting ......................................................... 3
   CTA 155 Producing Theatre ............................................................................................... 3
   CTA 158 Fundamentals of Acting ....................................................................................... 3
   CTA 159 Technical Theatre: Theatrical Properties .......................................................... 3
   CTA 160 Technical Theatre: Sound .................................................................................... 3
   CTA 161 Technical Theatre: Props ...................................................................................... 3
   CTA 162 Technical Theatre: Voice ...................................................................................... 3
   CTA 163 Technical Theatre: Stage Manager ...................................................................... 3
   CTA 164 Technical Theatre: Production Manager ............................................................ 3
   CTA 166 Technical Theatre: Stage Manager ...................................................................... 3
   CTA 167 Theatre Practice ..................................................................................................... 1
2. Electives ......................................................... 1-4
   Choose courses beyond the 100 level in theatre arts or in other departmental areas specified under the major (see page 80).

TEACHING MAJORS

COMMUNICATION MAJOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in speech, certification code "BD," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #04, "Speech."

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. One of:
   - CTA 224 Public Speaking (3)
   - CTA 225 Listening Behavior (3)
   - CTA 226 Non-Verbal Communication (3)
   - CTA 227 Interpersonal Communication (3)
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
II-B-4. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ........................................... 49

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.

One of: (not taken under I-B-3 in Basic Studies)
   - CTA 224 Public Speaking (3)
   - CTA 225 Listening Behavior (3)
   - CTA 226 Non-Verbal Communication (3)
   - CTA 227 Interpersonal Communication (3)

Two of:
   - CTA 350 Persuasion (3)
   - CTA 354 Organizational Communication (3)
   - CTA 356 Argumentation and Debate (3)
   - CTA 359 Small Group Communication (3)

Two of:
   - CTA 440 Survey of Public Address (3)
   - CTA 460 Theories of Speech Criticism (3)
   - CTA 475 Research in Speech Communication (3)
   - CTA 485 Theories of Speech Communication Behavior (3)

15 hours from:
   - CTA 224 Public Speaking (3)
   - CTA 226 Non-Verbal Communication (3)
   - CTA 227 Interpersonal Communication (3)
   - CTA 227 Interpersonal Communication (3)
   - CTA 321 Parliamentary Procedure and Meeting Management (3)

   - CTA 350 Persuasion (3)
   - CTA 356 Argumentation and Debate (3)
   - CTA 357 Interviewing as Communication (3)
   - CTA 359 Small Group Communication (3)
   - CTA 440 Survey of Public Address (3)
   - CTA 460 Theories of Speech Criticism (3)
   - CTA 387 Cooperative Education (1)
   - CTA 388 Cooperative Education (2)
   - CTA 389 Cooperative Education (3)
   - CTA 487 Internship (1)
   - CTA 488 Internship (2)
   - CTA 489 Internship (3)
   - CTA 166/266/366/466 Forensics (1 each)

Minor

A minor from the approved list (see p. 230)

Subtotal, Major and minor: ........................................... 50

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
   - EDP 300 Introduction to Computer Applications in Education (1)
   - SGN 300 Exceptional Children in the Regular Classroom (1)
   - EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
   - CUR 305 Curriculum and Methods: Secondary (3)
   - CTA 307 The Teaching of Speech (3)
   - RDG 311 Teaching Reading in the Secondary School (3)
   - SFD 328 Social Aspects of Teaching (3)
   - EDP 340 Introduction to Assessment and Evaluation (3)
   - EDM 345 Media for the Classroom Teacher (1)
   - EDU 492 Student Teaching (12)

Credit hours in Professional Studies: .................................. 34

Total credit hours required, with 20-hour minor: ............... 133

*Course required for and applicable to major.
*Could be less, depending on the minor and the possible application of basic studies courses to the minor.

COMMUNICATION MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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."

The curriculum for this major is that which is listed under "Teaching Major" in the secondary speech program given above, plus the requirements under I-B-3 in that program's Basic Studies requirements. Approved minors are those for the elementary program as given on page 230.

30 hours, not including the minor and not including course work that may be satisfied through Basic Studies.

TEACHING MINORS

COMMUNICATION MINOR
ELEMENTARY, SPECIAL EDUCATION-ELEMENTARY, K-12, AND SPECIAL EDUCATION-K-12 TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in speech, certification code "BD." The certification test covering this field is #04, "Speech."
20

*One of:
  CTA 121 Fundamentals of Speech (2)
  CTA 124 Fundamentals of Speech (3)

One of:
  CTA 205 Voice and Articulation (3)
  CTA 210 Interpretive Reading (3)
  CTA 301 Speech Science (3)
  CTA 400 Phonetics and Dialects of Spoken English (3)

One of:
  CTA 155 Producing Theatre (3)
  CTA 222 Drama and Play in Human Experience (3)
  CTA 252 Stagecraft (3)
  CTA 323 Improvising and Role-Play (3)

One of:
  *CTA 224 Public Speaking (3)
  CTA 350 Persuasion (3)
  CTA 356 Argumentation and Debate (3)
  CTA 359 Small Group Communication (3)

If CTA 121 is in the program, choose 9 hours; if CTA 124 is in
the program, choose 8 hours; from courses listed above
or from the following:
  CTA 141 Introduction to Radio-TV-Film Production (3)
  CTA 165 Television Laboratory (1)
  CTA 166 Forensics (1)
  CTA 167 Theatre Practice (1)
  CTA 168 Interpretation (1)
  CTA 169 Radio Station WQBR (1)
  CTA 322 Theatre for the Young (3)
  CTA 497 Independent Study (1)

20 hours (including hours satisfied in Basic Studies)

*Included in Basic Studies.

FUNDAMENTALS OF SPEECH COURSES

CTA 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 CTA 124.

CTA 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 CTA 121.

COMMUNICATION COURSES

CTA 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: CTA 121/124.

CTA 225 Listening Behavior. 3 hrs
The study of the behavior, processes, and theory of human listening;
practice in improving listening skills.
Prereq: CTA 121/124.

CTA 226 Non-Verbal Communication. 3 hrs
An examination of non-verbal and situational behaviors, relationships,
objects, and events surrounding speech communication acts.
Prereq: CTA 121/124.

CTA 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 the basic studies.
Prereq: CTA 121/124.

CTA 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 on the major or minor. Not open to students on academic probation.

Prereq: Four courses in communication and theatre arts.

CTA 321 Parliamentary Procedure and Meeting Management. 3 hrs
A study of the principles of parliamentary procedure with a special emphasis on Robert’s Rules of Order. Students will learn general skills in managing meetings: how to chair a meeting and how to serve as a parliamentarian.
Prereq: CTA 121/124.

CTA 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: CTA 121/124.

CTA 352 Communication in Negotiation. 3 hrs
Practical communication skills for negotiating a labor union collective bargaining agreement and effective grievance handling.
Prereq: CTA 121/124, or department permission.

CTA 353 Organizational Communication in Unions. 3 hrs
The study of the organizational communication structures and channels involved in public and private sector labor unions. Emphasis is placed on the communication skills of the officers and labor union representatives.
Prereq: CTA 121/124, or department permission.

CTA 354 Organizational Communication. 3 hrs
An investigation of information patterns and persuasion in the formal organization.
Prereq: CTA 121/124.

CTA 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: CTA 121/124.

CTA 357 Interviewing as Communication. 3 hrs
The principles and practices of the interview as they relate to communication elements; the interview process, structure, function, and techniques explored from both the perspective of the interviewer and the interviewee.
Prereq: CTA 121/124, or department permission.

CTA 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: CTA 121/124.

CTA 372 Assertive Communication. 3 hrs
Individualized approach to study and training in effective assertive communication for social, conversational, and career-oriented situations.
Prereq: CTA 121/124, or department permission.

CTA 373 Family Communication. 3 hrs
Descriptive and theoretical study of communication in families with emphasis on the influence of family communication on individuals.
Prereq: CTA 121/124 and CTA 227.

CTA 374 Intercultural Communication. 3 hrs
Analysis of processes and problems of communication as affected by national cultures; effects of differences in verbal and non-verbal communication, values, meaning, perception, and thought.
Prereq: CTA 121/124, or department permission.

CTA 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: CTA 121/124.

CTA 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.

CTA 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.

CTA 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.

CTA 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.

Drama/Theatre for the Young

CTA 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.

CTA 322 Theatre for the Young. 3 hrs
An introductory study of the development, philosophy and techniques of theatre for the young.

CTA 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.

CTA 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.

CTA 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.

CTA 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.
CTA 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.

INTERPRETATION/PERFORMANCE STUDIES

CTA 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.

CTA 202 Voice Development. 1 hr
Advanced laboratory exercises and specialized projects: Pronouncing foreign terms for professional speaking.
Prereq: CTA 102 or department permission.

CTA 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: CTA 121/124, or department permission.

CTA 210 Interpretive 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: CTA 121/124.

CTA 301 Speech Science. 3 hrs
A survey of the physiological and psychological bases of speech and hearing. Emphasis is placed on understanding the physical characteristics of speech sounds and the human voice as they are used in effective oral communication.
Prereq: One of the following: CTA 205, CTA 210, CTA 241, CTA 158, or department permission.

CTA 302 Voice Development. 1 hr
Advanced laboratory exercises and specialized projects: Energetic vocal skills for theatre/interpretation.
Prereq: CTA 102 or department permission.

CTA 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: CTA 210.

CTA 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: CTA 210 or department permission.

CTA 400 Phonetics and Dialects of Spoken English. 3 hrs
A survey of the physiology and physics of speech sounds. Intensive study of the international phonetic alphabet in dialectology and speech improvement. Comparative study of phonemic systems and initial teaching alphabet.
Prereq: CTA 301, CTA 205, or department permission.

CTA 402 Voice Development. 1 hr
Advanced laboratory exercises and specialized projects: Skills, theory, and individualized projects.
Prereq: CTA 102 or department permission.

CTA 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 CTA 102 or CTA 205, or take CTA 402 concurrently.

CTA 405 Voice and Dialects. 3 hrs
Advanced projects in preparing oral presentations and characterizations in regional and foreign dialects.
Prereq: CTA 102 or CTA 402 or CTA 205, or department permission.

CTA 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: CTA 210 and two courses in literature, one of which should be either LIT 210 or LIT 103, or department permission.

CTA 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.

CTA 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: CTA 210.

CTA 414 Development and Theory of Oral Interpretation. 3 hrs
The development of oral interpretation from ancient Greece to the present, including the study of modern theories in oral interpretation.
Prereq: Nine hours of oral interpretation or department permission.

THEATRE ARTS COURSES

CTA 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 specified on-campus performances. Not open to those with credit in MUS/DAN 106.

CTA 126 The Age of Shakespeare. 3 hrs
An introduction to basic areas of Renaissance thought as background to at least three of Shakespeare’s plays, which are considered from the theatrical point of view as well as philosophical and literary. Team taught by members of the English and Communication and Theatre Arts Departments. This course satisfies one literature or one theatre arts requirement. Note: See Honors Humanities Courses, page 30.

CTA 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 selected EMU theatre productions. Required of theatre arts majors and minors.
CTA 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.

CTA 152 Technical Theatre: Scenery and Lighting. 3 hrs
The comprehensive study and application of design fundamentals and basic technology for theatrical scenery and lighting.

CTA 153 Technical Theatre: Costume and Make-up. 2 hrs
The comprehensive study and application of design fundamentals and basic technology for theatrical costumes and make-up.

CTA 155 Producing Theatre. 3 hrs
A comprehensive introduction to theatrical production organization: business management, direction, and technical production. Laboratory hours by appointment.
Prereq: CTA 150 strongly recommended for majors and minors.

CTA 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.

CTA 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.

CTA 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: CTA 155 strongly recommended for department majors and minors.

CTA 254 Stage Makeup. 1 hr
The theory and techniques of theatrical makeup. Laboratory hours to be arranged.

CTA 258 Mime/Pantomime and Mask. 3 hrs

CTA 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: CTA 152, CTA 252, CTA 155, or department permission.

CTA 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: CTA 155 or department permission.

CTA 358 Characterization. 3 hrs
The creation of character and characterization by the actor. Analysis, development, and performance of roles studied in depth.
Prereq: CTA 158 or department permission.

CTA 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

CTA 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: CTA 360 or department permission.

CTA 362 Stage Lighting. 2 hrs
Stage lighting; historical development, basic electrical theory, switchboard and lighting instruments, color theory, principles, and practices in stage lighting. Laboratory hours to be arranged.
Prereq: CTA 152, CTA 252, CTA 155, or department permission.

CTA 363 Stage Costume: History and Theory. 3 hrs
A survey of the principles and practices of stage costuming from antiquity to present.
Prereq: CTA 155 or department permission.

CTA 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: CTA 363 or department permission.

CTA 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.

CTA 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.

CTA 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.

CTA 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: MKT 360.

CTA 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: Twelve hours in arts management or department permission.

CTA 456 Experimental Approaches to Directing. 1 hr
Study of non-traditional possibilities for using the dynamics of theatre to enhance a performance.
Prereq: One course in acting or department permission.

CTA 457 Tryouts and Auditions. 1 hr
Intensive study in the preparation of tryout and audition material for the actor.
Prereq: One course in play direction or department permission.

CTA 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.
CTA 459 Problems in Pre-Modern 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.

CTA 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.

CTA 462 Directors on Directing. 2 hrs
Study of selected noted stage directors past and present. Prereq: Nine hours in theatre arts or department permission.

CTA 463 The American Musical Stage: 1900 to 1940. 2 hrs
A survey of the early character and development in America of the Broadway musical, concentrating on operetta, the musical revue, and musical comedy. Prereq: Junior standing or department permission.

TELECOMMUNICATIONS AND FILM COURSES

CTA 130 Introduction to Telecommunications and Film. 3 hrs

CTA 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 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 minors and majors. As an introductory course in audio production, CTA 131 is essential to all other advanced production courses, including video and film. As such, CTA 131 must be taken before CTA 132 or other courses in the production curriculum. Laboratory fee.

CTA 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 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. CTA 132 is designed as an introductory course in Video production. Laboratory fee. Prereq: CTA 131.

CTA 141 Introduction to Radio-TV-Film Production. 3 hrs
For non-majors or 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. Prereq or coreq: CTA 130.

CTA 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 auteursim. 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.

CTA 230 Mass Media in America. 3 hrs
A general survey of mass media with selected radio-television programs and film used to examine key concepts in production, criticism, history, and industry structure. May not be counted on major or minor in telecommunications and film.

CTA 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 post-production work. Two regular lecture hours and two hours of laboratory per week. Field work projects arranged. Laboratory fee. Prereq: CTA 130, CTA 131, and CTA 132; or department permission.

CTA 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: CTA 130.

CTA 241 Radio-Television-Film Announcing. 3 hrs
A study of the various types of radio, television, and film non-dramatic speaking such as music, commercials, interviews, and documentaries. Practice and evaluation of announcing types and styles. Prereq: CTA 130 and CTA 131 and CTA 132, or department permission.

CTA 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: CTA 145 or department permission.

CTA 331 Fundamentals of Radio Production and Direction. 3 hrs
The fundamentals of preparation, production, direction, and evaluation of non-dramatic radio programs. Prereq: CTA 130 and CTA 131 and CTA 132, or department permission.

CTA 332 Fundamentals of Television Production and Direction. 3 hrs
The fundamentals of preparation, production, direction, and evaluation of non-dramatic television programs. Emphasis is placed on basic techniques of studio and remote productions. Laboratory fee. Prereq: CTA 130 and CTA 131 and CTA 132, or department permission.

CTA 333 Fundamentals of Film Production and Direction. 3 hrs
An introduction to the principles of film-video production. Course offers theory and practice of film-video continuity, master sequencing, narrative and non-narrative editing. Three 16mm film or video projects will be required. Laboratory fee. Prereq: CTA 130 and CTA 131 and CTA 132, or department permission.

CTA 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: CTA 130, CTA 131, and CTA 132 for majors and minors, or JRN 215 for majors/minors in journalism or public relations, or department permission.
CTA 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 be alternated over terms to allow an in-depth approach.
Prereq: CTA 130 and CTA 131 and CTA 132, or department permission.

CTA 336 Studies in Telecommunications. 3 hrs
A comparative study of broadcasting services in European, Soviet, and Third World nations, also international short-wave, satellite interconnections, CATV, limited application video systems, and new technologies. Topics will be alternated over terms to allow an in-depth approach.
Prereq: CTA 130 and CTA 131 and CTA 132, or department permission.

CTA 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: CTA 145 or department permission. CTA 210 or CTA 158 recommended.

CTA 344 Continuity Writing for Radio-Television-Film. 3 hrs
A study of the forms of non-dramatic writing for radio, television, and film, including commercials, public service announcements, music continuity, and narrations.
Prereq: CTA 130 and CTA 131 and CTA 132, or department permission.

CTA 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: CTA 145 or department permission.

CTA 431 Advanced Radio Production and Direction. 3 hrs
A continuation of CTA 331. Advanced theory and practical experience in production of longer, more complex dramatic and non-dramatic material for radio.
Prereq: CTA 331 or department permission.

CTA 432 Advanced Television Production and Direction. 3 hrs
A continuation of CTA 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: CTA 332 or department permission.

CTA 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: CTA 333 and department permission.

CTA 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: CTA 145 or LIT 245 or department permission.

CTA 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: Twelve semester hours of radio-television courses or department permission.

CTA 447 Radio-Television Station Management. 3 hrs
Study of station management in the areas of advertising, programming, personnel, applied research, and public relations.
Prereq: Twelve semester hours of radio-television courses or department permission.

ACTIVITY COURSES

CTA 165/265/365/465 Television Laboratory. 1 hr each
Students who participate in co-instructional activities may, with the approval of the professor in charge of the activity 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: CTA 130, CTA 131, and CTA 132, or department permission.

CTA 166/266/366/466 Forensics. 1 hr each
Students who participate in co-instructional activities may, with the approval of the professor in charge of the activity 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.

CTA 167/267/367/467 Theatre Practice. 1 hr each
Students participating in specified positions of major responsibility in the 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:

167—Heading a technical crew for a faculty-directed production.
Prereq: CTA 155, CTA 152, or CTA 252 plus previous experience on a similar crew for at least one EMU Theatre production.

267—Assistant directing and/or stage managing a faculty-directed production.
Prereq: CTA 167 and CTA 355.

367—Directing an Experimental Series production.
Prereq: CTA 167 and CTA 355.

467—Additional experience in the responsibilities listed for 367.
Prereq: CTA 167, CTA 267, or CTA 367.

CTA 168/268/368/468 Interpretation. 1 hr each
Students who participate in co-instructional activities may, with the approval of the professor in charge of the activity 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: CTA 210 or department permission.

CTA 169/269/369/469 Radio Station WQB Rack. 1 hr each
Students who participate in co-instructional programs may, with the approval of the professor in charge of the activity 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: CTA 130, CTA 131, and CTA 132, or department permission.

SPECIAL TOPICS COURSES

CTA 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.
CTA 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.

CTA 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.

CTA 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.

COOPERATIVE EDUCATION COURSES

CTA 387/388/389 Cooperative Education. 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.

INTERNSHIP COURSES

CTA 487/488/489 Internship. 1/2/3 hrs
One semester of practical, on-the-job work experience and training (four hours per week minimum) at selected on-campus or off-campus facilities.
Prereq: Twenty semester hours of concentration courses and department permission.

INDEPENDENT STUDY COURSES

CTA 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.

SEMINAR COURSE

CTA 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.

COMPUTER SCIENCE

George E. Haynam
Department Head
511 Pray-Harrold
487-1063

Professors: George E. Haynam, Hartmut F.W. Höft, Kurt E. Lauckner, Mildred D. Lintner
Associate Professors: Ranjan Chaudhuri, Andrew C. Dempster, Alan Heezen, William W. McMillan, John H. Remmers, Sushil K. Sachdev, Aby Tehranipour
Assistant Professors: John K. Cooper, Susan M. Haynes, Michael Zeiger
Instructors: Augustine Ikeji, Zenia Jones, Pamela A. Moore
Laboratory Coordinators: P. Steven Dotson, Karen Ueberroth

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.

ACADEMIC MAJOR

COMPUTER SCIENCE MAJOR

Sem hours

Major in computer science .................................................. 36

1. Required courses .......................................................... 24
   CSC 138 Computer Science I ........................................... 3
   CSC 238 Computer Science II ......................................... 3
   CSC 239 Assembly and Machine Language Programming .......... 3
   CSC 330 Discrete Mathematical Structures ....................... 3
   CSC 334 Data Structures ............................................. 3
   CSC 337 Programming Languages .................................... 3
   CSC 338 Computer Organization ..................................... 3
   CSC 365 Foundations of Automata and Languages ............... 3

2. Restricted electives ...................................................... 12
   Choose four courses from the following two groups with at least two courses from Group A:
ACADEMIC MINOR

COMPUTER SCIENCE MINOR

Students on the non-teaching 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.

Sem hours
Minor in computer science ........................................... 21

1. Required courses
   CSC 138 Computer Science I .................................. 3
   CSC 238 Computer Science II .................................. 3
   CSC 239 Assembly and Machine Language Programming ................. 3
   CSC 334 Data Structures ....................................... 3

2. Restricted electives ............................................. 9
   Choose three courses from the following:
   CSC 330 Discrete Mathematical Structures; CSC 337 Programming Languages; CSC 338 Computer Organization; CSC 365 Foundations of Automata and Languages; CSC 430 Compiler Construction; CSC 431 Systems Programming; CSC 432 Switching Theory; CSC 433 Computer Operating Systems; CSC 435 Introduction to Microprocessors; CSC 437 Microcomputer Graphics; CSC 441 Computing Network Principles; CSC 442 Database Principles; CSC 443 Software Engineering Principles

TEACHING MAJOR

COMPUTER SCIENCE MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in computer science, certification code "NR," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #50, "Computer Science."

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover

I-B-4. MTH 122 Elementary Linear Algebra (3)
I-B-5. CSC 136 Computers for the Non-Specialist (3)*
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ...................................... 49

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.

CSC 138 Computer Science I (3)
CSC 238 Computer Science II (3)
CSC 239 Assembly and Machine Language Programming (3)
CSC 330 Discrete Mathematical Structures (3)
CSC 334 Data Structures (3)
CSC 336 Programming Languages for Educators (3)
CSC 340 Applications in Computer Science (3)
CSC 490 Seminar and Project Design for Educators (3)

One of:
   HIS 290 Introduction to the History of Technology (3)
   PLS 382 Politics and the 21st Century (3)
   ANT 378 Special Topics: Contemporary Issues in Developing and Modern Technological Societies (3)
   ECO 386 Technology and Economic Growth (3)
   SOC 462 Complex Organizations (3)
   IDT 495 Technology, Values, and the Future (3)

Minor

Select a minor from the approved list (see p. 230)

Credit hours in minor: ................................................ 20

Credit hours in major and related areas: .......................... 47

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
CSC 346 Methods of Teaching Computer Science in the Secondary Schools (3)
EDU 492 Student Teaching (3)

Credit hours in Professional Studies: ................................ 34

Total credit hours required, with 20-hour minor: ............ 130

*Course required for and applicable to major.
1Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.
TEACHING MINOR

COMPUTER SCIENCE MINOR
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARYTEACHER CERTIFICATION

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."

*CSC 136 Computers for the Non-Specialist (3)
*CSC 138 Computer Science I (3)
CSC 238 Computer Science II (3)
CSC 239 Assembly and Machine Language Programming (3)
CSC 334 Data Structures (3)
CSC 336 Programming Languages for Educators (3)
CSC 340 Applications in Computer Science (3)
CSC 346 Methods of Teaching Computer Science in the Secondary Schools (3)
24 hours (including hours satisfied in Basic Studies)

*May be satisfied in Basic Studies.

COMPUTER SCIENCE COURSES

CSC 136 Computers for the Non-Specialist. 3 hrs
A survey of computer science for non-specialists who wish to learn about the capabilities and applications of computers in our society. The student will learn to write programs in the BASIC language. Not open to computer science non-teaching majors.

CSC 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 CSC 137 and CSC 237. Does not count toward computer science major or minor.

Prereq: One and a half years of high school algebra.

CSC 138 Computer Science I. 3 hrs
An introduction to computers, programming, algorithm development, and a block structured language such as Pascal. In particular, strategies for problem solving, problem analysis, algorithm representation, and algorithm verification are balanced with actual program development using top-down, stepwise refinement design and good documentation techniques. The first course in the computer science major and minor, but open to all students.

Prereq: High school algebra I or MTH 105.

CSC 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.

CSC 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 CSC 137 and CSC 237. Does not count toward computer science major or minor.

Prereq or coreq: MTH 121.

CSC 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: CSC 138.

CSC 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: CSC 137, CSC 138, CSC 237, or IS 219.

CSC 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.

CSC 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.

CSC 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: CSC 238, CSC 239, and MTH 122. CSC 239 may be taken concurrently.

CSC 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: CSC 238 and CSC 239.

CSC 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 CSC 336 and CSC 337.

Prereq: CSC 238 or equivalent and CSC 239.

CSC 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 CSC 336 Programming Languages for Educators and CSC 337 Programming Languages.

Prereq: CSC 238 and CSC 239.

CSC 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: CSC 238 and CSC 239.

CSC 340 Applications in Computer Science. 3 hrs
Information systems, simulation, graphics, audio communication, artificial intelligence, instruction and training, and communica-
CSC 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 on the major or minor.
Prereq: CSC 336, CUR 305, and admission to the teacher education program.

CSC 350 C Programming in a UNIX Environment. 3 hrs
An intermediate course in computer programming, using the C programming language and emphasizing software development in a UNIX environment. Concepts of structured programming; operators and expressions; statements, functions, and program organization; pointers, arrays, and character strings; structured data types; input/output; command line arguments. Use of UNIX commands, editors, and other tools related to software development. Credit will not be given for more than one of CSC 451 and CSC 350. Does not count toward the Computer Science major or minor.
Prereq: CSC 239.

CSC 365 Foundations of Automata and Languages. 3 hrs
A rigorous treatment of finite state automata and the languages accepted by them: deterministic and non-deterministic automata, push-down automata, regular and context-free languages, Turing machines. Applications to lexical analysis and parsing. Students will design automata and implement language processors.
Prereq: CSC 330 and CSC 334.

CSC 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: CSC 238, CSC 239, and department permission.

CSC 388 Cooperative Education. 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 (CSC 388 and CSC 488) alternated 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.

CSC 430 Compiler Construction. 3 hrs
Prereq: CSC 337 and CSC 365.

CSC 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: CSC 334, CSC 337, and CSC 338.

CSC 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: CSC 330 and CSC 338.

CSC 433 Computer Operating Systems. 3 hrs
Prereq: CSC 334 and CSC 338.

CSC 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 firsthand knowledge of this field.
Prereq: CSC 338 or department permission.

CSC 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: CSC 334 and MTH 122.

CSC 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: CSC 334 and CSC 338. CSC 330 recommended.

CSC 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: CSC 363. CSC 337 recommended.

CSC 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: CSC 337, CSC 338, and CSC 365.

CSC 450 UNIX for Programmers. 1 hr
A course on the use of the UNIX operating system, with emphasis on those features which make it an outstanding development environment. History and design philosophy; basic commands and use of the editors; file system; shell constructs such as I/O redirection, pipelines, command substitution, variable substitution, and back-
ground tasks; pattern matching programs 'grep,' 'awk,' 'sed,' shell programming; internal structure. Does not count toward the computer science major or minor. 
Prereq: Completion of at least one regular 300-level course in Computer Science.

CSC 451 Programming in C. 2 hrs
A course in the C language for those familiar with structured programming concepts, assembly language, and data structures. Syntax and semantics of expressions and statements; program organization; pointers and arrays; structures and unions; input/output; program structure; macro preprocessor; operating system environment; development tools such as 'lint' and 'make'; use of specialized program libraries such as the 'curses' screen control package. Does not count toward the computer science major or minor. 
Prereq: CSC 334 (may be taken concurrently.)

CSC 452 Programming in Ada. 3 hrs
A course in the 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. Procedural packages will be written and tested using an Ada compiler. Does not count as a restricted elective. 
Prereq: CSC 334 or IS 315.

CSC 460 Computer Science Practicum. 3 hrs
A capstone course for students majoring in computer science that will provide the opportunity to develop one or more large software systems utilizing the latest software design techniques. These techniques include requirement specifications, functional specifications, architectural design, performance measurement, and testing. A final written report will be required that includes both the design documents and a user's guide. 
Prereq: Any 400 level course in computer science.

CSC 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.

CSC 488 Cooperative Education. 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 (CSC 388 and CSC 488) alternated with full-time attendance at the University. Use on computer science major subject to department permission. Graded credit/no credit. 
Prereq: CSC 388 and department permission.

CSC 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: CSC 334, CSC 336, and senior standing.

CSC 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 Department of Computer Science. 
Prereq: Undergraduate grade point average in computer science of 3.0 or above and department permission.

ECONOMICS

Young-Iob Chung 
Department Head 
703 Pray-Harrold 
487-3395

Professors: Young-Iob Chung, Kemper Moreland, Donald W. Pearson, Michael G. Vogt
Associate Professors: Dewan A. Abdullah, John A. Edgren, Raouf S. Hanna, Steven C. Hayworth, Bill M. Woodland
Assistant Professors: David B. Crary, Sharon Erenburg, Alfredo G. Esposto, Deborah M. Figart, Ejia Multasuo, James A. Thornton

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 coursework, 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:
Economics (with concentrations in business economics, economics of finance, labor economics, governmental economics, comparative economic systems, and theoretical and quantitative economics)
Actuarial Science and Economics (Joint program with the Mathematics department)
Economics for secondary education
Labor Studies

Minors:
Economics
Economics for secondary, K-12, and special education-secondary
Labor studies

Advising is available to students on a walk-in basis during regularly scheduled office hours. A list of advisers is posted in the Economics department.
Advising Coordinators:
BA/BS in economics: Dewan A. Abdullah, John Edgren,
Deborah M. Figart, Kemper Moreland, Eija Multasuo
BBA in economics: Michael G. Vogt, 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 development, trade, and planning. The degrees are described in the Graduate Catalog.

ACADEMIC MAJORS

BACHELOR OF BUSINESS ADMINISTRATION IN ECONOMICS

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 and/or research careers in business and/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 (see page 207) in addition to fulfilling the 24 semester hours in economics.

<table>
<thead>
<tr>
<th>Major in economics</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required courses</td>
<td>9</td>
</tr>
<tr>
<td>ECO 301 Intermediate Macroeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECO 302 Intermediate Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>*ECO 310 Economic Statistics or ECO 415 Introduction to Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>*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 ECO 310 Economic Statistics; ECO 415 Introduction to Econometrics is recommended in this case.</td>
<td></td>
</tr>
<tr>
<td>2. Restricted electives</td>
<td>15</td>
</tr>
<tr>
<td>Although any 15 semester 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 patterns: business economics, economics of finance, labor economics, governmental economics, comparative economic systems, and theoretical and quantitative economics listed under the economics major.</td>
<td></td>
</tr>
<tr>
<td>Student selecting this economics major are encouraged to include at least one 400-level course offered in the College of Business as an elective.</td>
<td></td>
</tr>
</tbody>
</table>

ACTUARIAL SCIENCE AND ECONOMICS MAJOR

Actuarial science and economics is a joint program of the Mathematics and Economics Departments. In addition to following a prescribed series of courses, students are expected to pass the first two actuarial examinations. The examinations are sponsored by leading actuarial societies and administered in numerous U.S. locations. The first of these covers calculus and linear algebra and the second covers mathematical statistics. MTH 372 and 472 are designed to prepare students for these examinations.

<table>
<thead>
<tr>
<th>Major in actuarial science and economics</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required courses</td>
<td>53</td>
</tr>
<tr>
<td>a. Basic studies</td>
<td>9</td>
</tr>
<tr>
<td>b. Mathematics</td>
<td>15</td>
</tr>
<tr>
<td>MTH 120-121 Calculus I-II</td>
<td>8</td>
</tr>
<tr>
<td>MTH 122 Elementary Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MTH 223 Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MTH 370, 471 Probability and Statistics I and II</td>
<td>7</td>
</tr>
<tr>
<td>MTH 436 Introduction to Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MTH 372, 472 Problems in Actuarial Studies I and II</td>
<td>4</td>
</tr>
<tr>
<td>c. Economics</td>
<td>15</td>
</tr>
<tr>
<td>ECO 301 Intermediate Macroeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECO 302 Intermediate Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECO 320 Labor Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 340 Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>ECO 415 Introduction to Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>2. Restricted electives</td>
<td>7</td>
</tr>
<tr>
<td>Choose electives from courses at the 300 level and above in mathematics, computer science, or economics</td>
<td></td>
</tr>
</tbody>
</table>

ECONOMICS MAJOR

The major in economics requires 30 semester hours of which 15 semester 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.

<table>
<thead>
<tr>
<th>Major in economics</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required courses</td>
<td>15</td>
</tr>
<tr>
<td>ECO 201-202 Principles of Economics I-II</td>
<td>6</td>
</tr>
<tr>
<td>ECO 301 Intermediate Macroeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECO 302 Intermediate Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECO 310 Economic Statistics or ECO 415 Introduction to Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>2. Electives</td>
<td>15</td>
</tr>
<tr>
<td>Although any 15 semester hours of electives in economics will complete the requirements for the major, choice of one of the six recommended course patterns provides concentration in a specific career area.</td>
<td></td>
</tr>
<tr>
<td>Inquire at the Economics department regarding suggested concentrations, suggested courses within concentrations, and appropriate economics faculty advisers.</td>
<td></td>
</tr>
</tbody>
</table>

LABOR STUDIES MAJOR

This program is administered through the Economics Department and leads to a Bachelor of Arts 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.

<table>
<thead>
<tr>
<th>Major in labor studies</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required courses</td>
<td>9</td>
</tr>
<tr>
<td>ECO 310 Economic Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 240 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 320 Labor Economics</td>
<td>3</td>
</tr>
<tr>
<td>2. Restricted electives</td>
<td>21</td>
</tr>
<tr>
<td>Choose seven courses from the following: ECO 321 Minority Workers in the Labor Market, ECO 322 American Labor Unions, ECO 323 Labor and Government, ECO 324 Unionism in the Public Sector, ECO 325 Collective Bargaining, ECO 328 Economics of Women, ECO 420 Comparative Labor Unionism</td>
<td></td>
</tr>
</tbody>
</table>
ACADEMIC MINORS

ECONOMICS MINOR

Sem hours
Minor in economics ....................................................... 20
1. Required courses .................................................. 6
   ECO 201-202 Principles of Economics I-II .................. 6
2. Electives .......................................................... 14
   Choose 14 credits from any economics courses, ECO 301
   and ECO 302 are highly recommended.

LABOR STUDIES MINOR

Sem hours
Minor in labor studies ................................................... 20
Electives ............................................................. 20
   Choose 20 credits from the following:
   ECO 310 Economic Statistics, ECO 320 Labor Economics,
   ECO 321 Minority Workers in the Labor Market, ECO
   322 American Labor Unions, ECO 323 Labor and Gov-
   ernment, ECO 324 Unionism in the Public Sector, ECO
   325 Collective Bargaining, ECO 328 Economics of Women,
   ECO 420 Comparative Labor Unionism
   ACC 240 Principles of Accounting I
   CTA 352 Communication in Negotiation, CTA 353 Orga-
   nizational Communication in Unions
   HIS 463 United States Labor History
   LAW 403 Employment Law
   MGT 384 Human Resource Management
   PLS 355 Labor in American Politics
   PSY 351 Industrial Psychology
   SOC 307 Industrial Sociology

TEACHING MAJOR

ECONOMICS MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context
of other program requirements, qualifies the student for recomme-
dation for certification for the Michigan Department of Educa-
tion Secondary Provisional Certificate endorsed in economics, certifi-
cation code "CA" and, depending on the minor selected, endorsement
in geography ("CB"), history ("CC"), political science ("CD"),
psychology ("CE"), sociology ("CF"), or social science ("CX").
The certification test covering this field is #07, "Economics."

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. One of:
   MTH 119 Mathematical Analysis for Social Sciences II (3)
   MTH 120 Calculus I (4)
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover

III-B-1. Basic Studies requirement. See inside back cover
III-B-2. HIS 102 Western Civilization, 1648 to World War I (3)
III-B-3. One of:
   GEO 107 Introduction to Geography (3)
   GEO 110 World Regions (3)
III-B-4. HIS 103 Twentieth Century Civilization (3)
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ......................... 49

Teaching Major

ECO 201-202 Principles of Economics I-II (6)
ECO 301 Intermediate Macroeconomic Analysis (3)
ECO 302 Intermediate Microeconomic Analysis (3)
One of:
   ECO 310 Economic Statistics (3)
   ECO 415 Introduction to Econometrics (3)

Fifteen hours of electives in economics

Minor

Minor in one of geography, history, political science, psychol-
ogy, sociology, or social science

Subtotal, Major and minor: ...................................... 50

Professional Studies

100 clock hours of approved pre-student teaching field experi-
ences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the
teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
HIS 481 The Teaching of Social Studies (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: .................. 34

Total credit hours required, with 20-hour minor: ............ 133

Could be less, depending on the minor and the possible application
of Basic Studies courses to the minor.

TEACHING MINOR

ECONOMICS MINOR

SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other
program requirements, qualifies the student for recommenda-
tion for endorsement in economics, certification code "CA." The certifi-
cation test covering this field is #07, "Economics."

*ECO 201 Principles of Economics I (3)
ECO 202 Principles of Economics II (3)
14 credits from any economics courses (ECO 301 and 302
highly recommended)
20 hours (including hours satisfied in Basic Studies)

*Could be satisfied in Basic Studies in some programs.
ECONOMICS COURSES

ECO 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.

ECO 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 ECO 201/ECO 202.

ECO 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: MTH 104 or high school algebra.

ECO 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: ECO 201 or equivalent, and MTH 104 or high school algebra.

ECO 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.

ECO 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 as long as 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.

ECO 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 linkages between the domestic and international economies. Topics include unemployment, inflation, monetary and fiscal policy, and the policy positions of various schools of thought. Standard analytical tools, such as IS-LM and aggregate demand and supply are examined.
Prereq: ECO 201 and ECO 202 or equivalent, and MTH 119/120.

ECO 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: ECO 201 and ECO 202 or equivalent, and MTH 119/120.

ECO 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: MTH 119 or MTH 120.

ECO 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: ECO 201 and ECO 202 or equivalent.

ECO 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.

ECO 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.

ECO 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.

ECO 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.

ECO 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.

ECO 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: ECO 201 and ECO 202 or department permission.

ECO 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 non-traditional occupations. Includes some international comparisons.
Prereq: One course in economics or junior standing.

ECO 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: ECO 202 or equivalent.

ECO 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: ECO 201 and ECO 202 or equivalent.

ECO 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: ECO 202 or equivalent.

ECO 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: ECO 202 or equivalent.

ECO 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: ECO 201 and ECO 202 or equivalent.
ECO 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: ECO 201 and ECO 202 or equivalent.

ECO 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: ECO 201 and ECO 202 or equivalent.

ECO 361 Corporation Finance. 3 hrs
The nature of technology and its importance for contemporary 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.

ECO 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.

ECO 375 Economic History of the United States. 3 hrs
The economic development of the United States.
Prereq: One course in economics.

ECO 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.

ECO 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: Department permission.

ECO 386 Technology and Economic Growth. 3 hrs
The nature of technology and its importance for contemporary economic growth. Includes technological change and the effects on society and the individual.
Prereq: One course in economics.

ECO 387 Cooperative Education. 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 (ECO 387 and ECO 487) alternated 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 towards 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.

ECO 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: ECO 301 and ECO 310, or equivalent.

ECO 402 Computer Applications in Microeconomics. 3 hrs
Applied linear and non-linear models of the consumer and the firm. Estimates demand functions (for example housing demand and energy demand), cost functions, and production functions.
Prereq: ECO 302 and ECO 310, or equivalent.

ECO 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: ECO 201 and ECO 202; ECO 302 highly recommended.

ECO 406 History of Economic Thought. 3 hrs
Introduction to the development of economic thought from the age of mercantilism to Keynes, with emphasis on the contributions of some of the major writers and schools of economic thought.
Prereq: ECO 201 and ECO 202.

ECO 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: ECO 201 and ECO 202 or department permission.

ECO 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: ECO 310 or MTH 370 or DS 265.

ECO 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: ECO 201 and ECO 202 or department permission.

ECO 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: ECO 201 and ECO 202 or equivalent.

ECO 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: ECO 301 or ECO 340 or department permission.

ECO 445 Economic Fluctuations and Forecasting. 3 hrs
The nature and causes of business fluctuations. Problems of forecasting business cycles, international aspects of the business cycle, and governmental stabilization policies.
Prereq: ECO 201 and ECO 202 or equivalent.

ECO 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: ECO 201 and ECO 202.

ECO 460 Industrial Organization. 3 hrs
Monopoly, competition, mergers, concentration and antitrust, and other public policies affecting private enterprise in the United States.
Prereq: ECO 201 and ECO 202.
ECO 471 Case Studies of Developing Economies. 3 hrs
A survey of economic problems in selected developing economies. Case studies of countries or regions among the less developed economies. Cases may change from year to year. Prereq: ECO 201 and ECO 202 or equivalent.

ECO 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.

ECO 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: ECO 201 and 202, or equivalent.

ECO 487 Cooperative Education. 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 (ECO 387 and ECO 487) alternated with full-time attendance at the University. A written report is required at the end of each employment period. Admission to program by application only. Graded credit/no credit. Credits count a maximum of three hours towards degree requirements in the labor studies program and none in the economics major or minor. Prereq: ECO 387. Department permission.

ECO 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.

ECO 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

Marcia A. Dalbey
Department Head
612 Pray-Harrold
487-4220


Associate Professors: Keith Denning, Harry Eis, Bernard Miller, Alexandra Norton, Daniel Seely


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.

The department supports a student chapter of Sigma Tau Delta, national honorary society for students of English; Women in Communications, Inc., national professional honorary organization for women and men in communications; and the student-managed English Club for all students of English.

Degrees:
Bachelor of Arts and Bachelor of Science

Programs of Study
Majors:
- English language
- English linguistics
- Journalism
- Literature
- Written communication

Interdisciplinary and Group Majors:
- English and American language and literature
- English and American language and literature for elementary education
- English and American language and literature for secondary education
- Language, journalism, telecommunications, and film
- Literature and drama/theatre for the young
- Literature and drama/theatre for the young for elementary education
- Literature, language, communications, and theatre arts
- Literature, language, communications, and theatre arts for elementary education

Minors:
- Children's literature
- Children's literature for elementary education
- English language
- English language and literature
- English language and literature for elementary education
- 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 (FRN/GER/SPN 121, 122, 221, or 222) instead of ENG 121 English Composition.

Graduate study leads to the master's degree in English. The MA degree is described in the Graduate Catalog. The undergraduate group major in English and American language and literature also is part of an accelerated Master of Arts program with concentration in language and composition. The Graduate School or the English department can provide details.

ACADEMIC MAJORS

ENGLISH AND AMERICAN LANGUAGE AND LITERATURE MAJOR

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. [One of:]
   * LIT 204 Native American Literature (3)
   * LIT 260 African American Literature (3)
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Major (including Basic Studies) ........................................................ 36

See note "a" above for courses applicable to both Basic Studies and the major.

LIN 201 An Introduction to Linguistics (3)
LIN 210 Introduction to Shakespeare (3)
ENG 227 Writing about Literature (3)
ENG 408 Writing for Writing Teachers (3)

One of:
   ENG 328 Writing: Style and Language (3)
   ENG 417 Writing about Controversies (3)

One of:
   LIN 401 Introduction to Linguistic Science (3)
   LIN 402 Modern English Grammar (3)
   LIN 421 The History of the English Language (3)

One of:
   LIT 305 Shakespeare: The Major Comedies and Histories (3)
   LIT 340 The Rise of British Drama to 1642 (3)
   LIT 341 English Drama 1660-1779 (3)
   LIT 411 Medieval Epic and Romance (3)
   LIT 412 English Literature in the Middle Ages (3)
   LIT 413 The Poetry of Chaucer (3)
   LIT 414 English Renaissance Prose and Poetry 1500-1660 (3)
   LIT 415 Literature of the Neo-Classic Period 1660-1798 (3)

One of:
   LIT 330 The Rise of the British Novel 1720-1832 (3)
   LIT 331 The Development of the British Novel 1832-1914 (3)
   LIT 416 Romantic Rebellion in Britain 1798-1832 (3)
   LIT 417 Victorian and Edwardian Literature 1832-1914 (3)

One of:
   LIT 333 Modern British and European Novel 1914 to Present (3)
   LIT 342 The Development of Modern Drama (3)
   LIT 401 Modern British and American Poetry 1914 to Present (3)
   LIT 460 Recent Trends in British and American Literature (3)

One of:
   Any course listed above but not taken
   ENG 324 Principles of Technical Communication (3)
   ENG 335 Imaginative Writing (3)
   JRN 215 News Writing and Reporting (3)
   LIN 205 English Words (3)
   LIN 310 African American Language (3)
   LIN 340 Language and Culture (3)

*Course required for and applicable to major.

ENGLISH LANGUAGE MAJOR

Sem hours

Major in English language .............................................................. 30

1. Required courses in advanced writing ..................................... 9
   Choose three courses from the following:
   ENG 225 Intermediate English Composition, ENG 326 Research Writing, ENG 328 Writing: Style and Language, ENG 417 Writing about Controversies

2. Required courses in linguistics ............................................... 9
   LIN 201 An Introduction to Linguistics and any two other LIN courses

3. Electives ................................................................. 12
   Any course not taken from (1) and (2) above as a required course, or any of the following:
   LIN 412 English Literature in the Middle Ages, LIT 413 The Poetry of Chaucer

ENGLISH LINGUISTICS MAJOR

Sem hours

Major in English linguistics ....................................................... 30

1. Required courses .......................................................... 18
   LIN 201 An Introduction to Linguistics ............................... 3
LIN 401 Introduction to Linguistic Science ................. 3
LIN 402 Modern English Grammar ................................ 3
LIN 420 Introduction to Phonology ............................... 3
LIN 421 The History of the English Language .................. 3
LIN 425 Introduction to Syntax ................................... 3
2. Electives ........................................................................ 12
The remaining twelve hours of study are to be selected by the candidates and their advisors. 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.

LITERATURE MAJOR

Major in literature ............................................................ 30
1. Required basic literature courses .................................. 9
   a. Choose two courses from the following:
      LIT 100 The Reading of Literature, LIT 101 The Reading of
         Literature: Fiction, LIT 102 The Reading of Literature:
         Poetry, LIT 103 The Reading of Literature: Drama, LIT
         204 Native American Literature, LIT 251 The Bible as
         Literature, LIT 260 African American Literature
   b. LIT 210 Introduction to Shakespeare
      (No more than nine semester hours of 100- and 200-level
      literature courses may count toward this major)
2. Restricted electives .................................................... 12
   Choose one course from each of the following groups:
   a. LIT 305 Shakespeare: The Major Comedies and Histories,
      LIT 340 The Rise of British Drama to 1642, LIT 341
      English Drama 1660-1779, LIT 411 Medieval Epic and
      Romance, LIT 412 English Literature in the Middle
      Ages, LIT 413 The Poetry of Chaucer, LIT 414 English
      Renaissance Prose and Poetry 1500-1660, LIT 415 Lit­
      erature of the Neo-Classical Period 1660-1798
   b. LIT 330 The Rise of the British Novel 1720-1832, LIT 331
      The Development of the British Novel 1832-1914, LIT 416
      Romantic Rebellions in Britain 1798-1832, LIT 417
      Victorian and Edwardian Literature 1832-1914
   c. LIT 333 Modern British and European Novel 1914 to
      Present, LIT 342 The Development of Modern Drama,
      LIT 401 Modern British and American Poetry 1914 to
      Present, LIT 460 Recent Trends in British and Ameri­
      can Literature
   d. LIT 328 The Rise of the American Novel to 1920, LIT
      332 The Modern American Novel 1920 to Present, LIT
      409 The Development of American Literature,
      LIT 410 Modern American Literature
3. Electives ........................................................................ 9
   Choose from the following:
   LIT 300 Narrative in Literature and Film, LIT 440 Literary
   Types, LIT 443 Women in Literature, LIT 450 Major
   Authors
   LIT 410 Modem American Literature

WRITTEN COMMUNICATION MAJOR

Students electing this major select one of the two areas of concentration: technical communications and imaginative writing. A 2.5 GPA is required for admission to each of the concentrations.

In the restricted electives for each concentration, students may take only the courses listed unless they obtain department permission for substitutions.
ENG 324 Principles of Technical Communication, ENG 328 Writing: Style and Language

Students will be required to complete a 20-hour minor from one of these areas:

Economics, English language and literature, foreign language (nine foreign language minors are available, in German, Spanish, and French, each with a minor option of language, language and literature, or literature), geography, history (several history minors are available; students wishing a history minor will select a minor approved by their journalism counselor), political science, sociology.

Students are advised to choose free electives from the following list:

LIT 210 Introduction to Shakespeare, LIT 332 The Modern American Novel 1920 to Present, LIT 410 Modern American Literature
HIS 101 Western Civilization to 1648; HIS 102 Western Civilization, 1648 to World War I; HIS 103 Twentieth Century Civilization
PHI 110 Philosophies of Life, PHI 130 Introduction to Logic
PLS 112 American Government (one other PLS course from a list available from journalism advisers)
ECO 201/202 Principles of Economics I/II
CSC 136 Computers for the Non-Specialist
ANT 135 Introduction to Cultural Anthropology

If a journalism major chooses a minor in economics, English language and literature, history, or political science, those courses listed here which are part of that minor should be replaced with courses listed as restricted electives on the major. Courses taken to fulfill the basic studies requirements leave room for still other free electives.

Science, technical, business, or other minors will be encouraged for those students wishing to pursue interests or careers that might combine journalism with those specialties. Choice of those minors will be subject to approval by the journalism adviser.

Suggested electives:
SOC 105 Introductory Sociology
CTA 141 Introduction to Radio-TV-Film Production, CTA 331 Fundamentals of Radio Production and Direction, CTA 332 Fundamentals of Television Production and Direction, CTA 336 Studies in Telecommunications

INTERDISCIPLINARY MAJOR IN PUBLIC RELATIONS

Admission to the program will require a 2.8 GPA, which must be maintained in the major as well as in the minor selected. Admission is granted by the Department of English Language and Literature. Courses from both the Departments of English and Communication and Theatre Arts are offered as requirements and restricted electives.

Interdisciplinary major in public relations ....................................... 41-42

1. Required fundamental courses ........................................ 17-18
JRN 215 News Writing and Reporting ................................ 3
JRN 312 Principles of Public Relations ................................ 3
JRN 314 Writing for Public Relations ................................ 3
CTA 121 or CTA 124 Fundamentals of Speech 2-3
CTA 141 Introduction to Radio-TV-Film Production .......... 3
CTA 224 Public Speaking or CTA 350 Persuasion .......... 3

2. Required advanced courses ........................................ 12
JRN 306 Feature Writing .................................................. 3
JRN 408 Case Studies in Public Relations ......................... 3

CTA 334 Radio-Television News or CTA 344
Continuity Writing for Radio-Television-Film ............... 3
CTA 354 Organizational Communication or CTA 357
Interviewing as Communication ........................................... 3

3. Restricted electives ........................................................ 12

A maximum of six hours may be chosen from:

FA 165 Graphic Design for Non-Majors, IDT 121 Graphic Communication, IDT 204 Photographic Communication, CSC 136 Computers for the Non-Specialist

Where applicable to public relations

Recommended minors:
Marketing or Management (College of Business), with MKT 360 Principles of Marketing and MKT 369 Advertising highly recommended, along with other courses such as statistics, marketing research, buyer behavior, promotional strategy).

English writing, sociology, psychology, or a minor chosen by student in specific field of interest.

INTERDISCIPLINARY MAJOR IN CHILDREN'S LITERATURE AND DRAMA/THEATRE FOR THE YOUNG

Sem hours

Interdisciplinary major in children's literature and drama/theatre for the young ................................................. 36

1. Required courses ........................................................ 26-27
Choose two courses from the following:
LIT 101 The Reading of Literature, LIT 102 The Reading of Literature: Fiction, LIT 107 The Reading of Literature: Poetry, LIT 103 The Reading of Literature: Drama, LIT 204 Native American Literature, LIT 210 Introduction to Shakespeare, LIT 231 The Bible as Literature, LIT 260 African American Literature ........................................ 6
ENG 450 Children's Literature: Criticism and Response .......... 3
LIT 207 Introduction to Children's Literature .......................... 3
LIT 351 World Mythology or LIT 352 Folk Literature: Ballads and Folk Tales ............................................. 3
CSC 136 Computers for the Non-Specialist.............................. 3
CTA 121 or CTA 124 Fundamentals of Speech ..................... 2-3
CTA 222 Drama and Play in Human Experience ...................... 3
CTA 323 Improvising and Role-Play .................................... 3
CTA 324 Oral Interpretation of Literature for the Young ....... 3

2. Restricted electives ........................................................ 9-10
Choose nine to 10 credits from the following:
LIT 204 Native American Literature, LIT 210 Introduction to Shakespeare, LIT 251 The Bible as Literature, LIT 351 World Mythology, LIT 352 Folk Literature: Ballads and Folk Tales, LIT 401 Modern British and American Poetry 1914 to Present, ENG 451 Writing about Controversy in Literature for the Young

CTA 168/268/368/468 Interpretation, CTA 210 Interpretative Reading, CTA 322 Theatre for the Young, CTA 327 Plays for the Young, CTA 497/498/499 Independent Study, EDM 506 Storytelling
### ACADEMIC MINORS

#### ENGLISH AND AMERICAN LANGUAGE AND LITERATURE MINOR

**Minor in English and American Language and Literature**: 24

1. **Required courses**: .......................................................... 9
   - Choose two courses from the following: ......................... 6
     - LIT 100 The Reading of Literature, LIT 101 The Reading of Literature: Fiction, LIT 102 The Reading of Literature: Poetry, LIT 103 The Reading of Literature: Drama, LIT 204 Native American Literature, LIT 251 The Bible as Literature, LIT 260 African American Literature

2. **Restricted electives**: ........................................................ 6
   - Choose one course from the following: ......................... 3
     - JRN 215 News Writing and Reporting, JRN 307 Copy Editing, JRN 314 Writing for Public Relations
   - Choose one course from the following: ......................... 3
     - LIN 201 An Introduction to Linguistics, LIN 402 Modern English Language
   - Choose one course from the following: ......................... 3
     - Any 300- or 400-level LIT course for which prerequisites have been met, except LIT 351 and LIT 352

3. **Elective**: .............................................................. 3
   - Choose from courses in literature, composition, or English language except ENG 120, LIT 207, LIT 352, ENG 451.

#### ENGLISH LANGUAGE MINOR

**Minor in English language**: 21-24

1. **Required courses in advanced writing**: ................. 6
   - ENG 225 Intermediate English Composition, ENG 326 Research Writing, ENG 328 Writing: Style and Language, ENG 335 Imaginative Writing, ENG 417 Writing about Controversies, ENG 422 Writer's Workshop: Fiction or Poetry, ENG 424 Technical Writing

2. **Required courses in linguistics**: ......................... 6
   - LIN 201 An Introduction to Linguistics
   - Any one other LIN course

3. **Elective**: .............................................................. 9-12
   - Any course not taken from (1) and (2) above as a required course, or any of the following:
     - ENG 324 Principles of Technical Communication, ENG 335 Imaginative Writing, ENG 417 Writing about Controversies, ENG 422 Writer's Workshop: Fiction or Poetry, ENG 424 Technical Writing
     - JRN 215 News Writing and Reporting, JRN 306 Feature Writing, JRN 307 Copy Editing, JRN 314 Writing for Public Relations, JRN 423 Magazine Article Writing, JRN 453 Advanced Reporting
     - LIT 412 English Literature in the Middle Ages, LIT 413 The Poetry of Chaucer

#### LITERATURE MINOR

**Minor in literature**: 21-24

1. **Required courses**: .......................................................... 9
   - Choose two courses from the following: ......................... 6
     - LIT 100 The Reading of Literature, LIT 101 The Reading of Literature: Fiction, LIT 102 The Reading of Literature: Poetry, LIT 103 The Reading of Literature: Drama, LIT 204 Native American Literature, LIT 251 The Bible as Literature, LIT 260 African American Literature

2. **Restricted electives**: ........................................................ 6
   - Choose one course from the following: ......................... 3

3. **Free electives**: .............................................................. 6-9
   - Choose from courses in literature, except the following:
     - LIT 207 Introduction to Children's Literature, LIT 352 Folk Literature: Ballads and Folk Tales
   - No more than nine semester hours of 100- and 200-level literature courses may count toward this minor.

#### JOURNALISM MINOR

**Minor in journalism**: 21

1. **Required courses**: .......................................................... 15
   - JRN 215 News Writing and Reporting, JRN 306 Feature Writing, JRN 307 Copy Editing, JRN 314 History of American Journalism, JRN 454 Contemporary Problems in Journalism

2. **Restricted electives**: ........................................................ 6
   - Choose six credits from the following:
     - ENG 324 Principles of Technical Communication, ENG 328 Writing: Style and Language, ENG 424 Technical Writing
     - JRN 305 Editorial, Column, and Review Writing; JRN 311 Editing Procedures; JRN 312 Principles of Public Relations; JRN 423 Magazine Article Writing; JRN 453 Advanced Reporting
     - CTA 141 Introduction to Radio-TV-Film Production; CTA 334 Radio-Television News; CTA 344 Continuity Writing for Radio-Television Film
     - IDT 121 Graphic Communication, IDT 204 Photographic Communication

#### ENGLISH LINGUISTICS MINOR

**Minor in English linguistics**: 21

1. **Required courses**: .......................................................... 6
   - LIN 201 An Introduction to Linguistics and any one other LIN course

2. **Restricted electives**: ........................................................ 15
   - Any LIN course not taken in 1. above, LIT 412 English Literature in the Middle Ages, LIT 413 The Poetry of Chaucer
TEACHING MAJORS

ENGLISH AND AMERICAN LANGUAGE AND LITERATURE MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in English, certification code "BA," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #02, "English."

Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. One of:
   *LIT 204 Native American Literature (3)
   *LIT 260 African American Literature (3)
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover
Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ............................ 49

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.

LIT 201 An Introduction to Linguistics (3)
LIT 210 Introduction to Shakespeare (3)
ENG 227 Writing about Literature (3)
ENG 408 Writing for Writing Teachers (3)
One of:
   ENG 328 Writing: Style and Language (3)
   ENG 417 Writing about Controversies (3)

One of:
   LIT 305 Shakespeare: The Major Comedies and Histories (3)
   LIT 340 The Rise of British Drama to 1642 (3)
   LIT 341 English Drama 1660-1779 (3)
   LIT 411 Medieval Epic and Romance (3)
   LIT 412 English Literature in the Middle Ages (3)
   LIT 413 The Poetry of Chaucer (3)
   LIT 414 English Renaissance Prose and Poetry 1500-1660 (3)
   LIT 415 Literature of the Neo-Classical Period 1660-1798 (3)

One of:
   LIT 330 The Rise of the British Novel 1720-1832 (3)
   LIT 331 The Development of the British Novel 1832-1914 (3)
   LIT 416 Romantic Rebellion in Britain 1798-1832 (3)
   LIT 417 Victorian and Edwardian Literature 1832-1914 (3)

One of:
   LIT 333 Modern British and European Novel 1914 to Present (3)
   LIT 342 The Development of Modern Drama (3)
   LIT 401 Modern British and American Poetry 1914 to Present (3)
   LIT 460 Recent Trends in British and American Literature (3)

One of:
   LIT 328 The Rise of the American Novel to 1920 (3)
   LIT 332 The Modern American Novel 1920 to Present (3)
   LIT 409 The Development of American Literature (3)
   LIT 410 Modern American Literature (3)

One of:
   Any course listed above but not taken
   ENG 324 Principles of Technical Communication (3)
   ENG 335 Imaginative Writing (3)
   JRN 215 News Writing and Reporting (3)
   LIN 205 English Words (3)
   LIN 310 African American Language (3)
   LIN 340 Language and Culture (3)

Minor

Select a minor from the approved list (see p. 230)

Subtotal, Major and minor: ........................................ 53

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
ENG 308 Teaching English in the Secondary Schools (3)
RDG 311 Teaching Reading in the Secondary School (3)
SDF 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ..................... 34

Total credit hours required, with 20-hour minor: .............. 136

Course required for and applicable to major.
Could be less, depending on the minor and the possible application of
Basic Studies courses to the minor.

ENGLISH AND AMERICAN LANGUAGE AND
LITERATURE MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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."
The curriculum for this major is that which is listed under
"Teaching Major" in the secondary English program above, plus the
requirements under IV B-2 in that program's Basic Studies require­
ments. Approved minors are those for the elementary program as
given on page 230.
33 hours, not including the minor and not including course
work that may be satisfied through Basic Studies.

TEACHING MINORS
ENGLISH AND AMERICAN LANGUAGE AND
LITERATURE MINOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION
ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other
program requirements, qualifies the student for recommendation
for endorsement in English, certification code "BA." The certification
test covering this field is #02, "English."
Two of:
*LIT 100 The Reading of Literature (3)
*LIT 101 The Reading of Literature: Fiction (3)
*LIT 102 The Reading of Literature: Poetry (3)
*LIT 103 The Reading of Literature: Drama (3)
LIT 251 The Bible as Literature (3)
*LIT 260 African American Literature (3)
LIT 210 Introduction to Shakespeare (3)
Any 300- or 400-level LIT course for which the prerequisites
have been met, except LIT 351 and LIT 352 (3)
One of:
*ENG 225 Intermediate English Composition (3)
ENG 326 Research Writing (3)
ENG 328 Writing: Style and Language (3)
(Prereq: an advanced writing course or permis­
sion)
ENG 335 Imaginative Writing (3)
ENG 417 Writing about Controversies (3)
(Prereq: two writing courses at 200-level or above
or permission)
ENG 422 Writer's Workshop: Fiction or Poetry (3)
ENG 424 Technical Writing (3)
(Prereq: ENG 324 or permission)
Not more than one of:

JRN 215 News Writing and Reporting (3)
JRN 306 Feature Writing (3)
(Prereq: JRN 215)
JRN 307 Copy Editing (3)
(Prereq: JRN 215 and JRN 306)
JRN 314 Writing for Public Relations (3)
(Prereq: JRN 215 and either CTA 121 or CTA
124)

One of:
LIN 201 An Introduction to Linguistics (3)
LIN 402 Modem English Grammar (3)
LIN 421 The History of the English Language (3)
(Prereq: LIN 201 or LIN 401)

Two courses in literature, composition, or English language except ENG 120, LIT 207, LIT 352, ENG 451. Students in elementary programs may take LIT 207.
24 hours (including hours satisfied in Basic Studies)

*May be satisfied in Basic Studies in some programs.
#Satisfies cross-cultural/international studies requirement.

CHILDREN'S LITERATURE MINOR
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY
TEACHER CERTIFICATION

Note: Successful completion of this minor, in the context of
other program requirements, qualifies the student for recommen­
dation for endorsement in English, certification code "BA." The
certification test for "English" is #02, "English." However, the
student is advised that there is no test in children's literature and that
the test in English covers material not included in this curriculum.
*LIT 207 Introduction to Children's Literature (3)
ENG 450 Children's Literature: Criticism and Response (3)
Two of:
**LIT 100 The Reading of Literature (3)
**LIT 101 The Reading of Literature: Fiction (3)
**LIT 102 The Reading of Literature: Poetry (3)
**LIT 103 The Reading of Literature: Drama (3)
LIT 251 The Bible as Literature (3)
**LIT 260 African American Literature (3)
LIT 210 Introduction to Shakespeare (3)
Any 300- or 400-level LIT course for which the prerequisites
have been met, except LIT 351 and LIT 352 (3)
One of:
**ENG 225 Intermediate English Composition (3)
ENG 326 Research Writing (3)
ENG 328 Writing: Style and Language (3)
(Prereq: an advanced writing course or permis­
sion)
ENG 335 Imaginative Writing (3)
ENG 417 Writing about Controversies (3)
(Prereq: two writing courses at 200-level or above
or permission)
ENG 422 Writer's Workshop: Fiction or Poetry (3)
ENG 424 Technical Writing (3)
(Prereq: ENG 324 or permission)
Not more than one of:

JRN 215 News Writing and Reporting (3)
JRN 306 Feature Writing (3)
(Prereq: JRN 215)
JRN 307 Copy Editing (3)
(Prereq: JRN 215 and JRN 306)
JRN 314 Writing for Public Relations (3)
(Prereq: JRN 215 and either CTA 121 or CTA
124)

One of:
LIN 201 An Introduction to Linguistics (3)
LIN 402 Modem English Grammar (3)
LIN 421 The History of the English Language (3)
(Prereq: LIN 201 or LIN 401)

Two courses in literature, composition, or English language except ENG 120, LIT 207, LIT 352, ENG 451. Students in elementary programs may take LIT 207.
24 hours (including hours satisfied in Basic Studies)

*May be satisfied in Basic Studies in some programs.
#Satisfies cross-cultural/international studies requirement.

COMPOSITION COURSES

ENG 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 Ameri­
can English. Required of students whose SAT verbal scores are
below 400 or whose ACT English scores are below 17, as space
permits. These students must take ENG 120 during their first
semester at Eastern as a prerequisite for ENG 121. ENG 120 does
not apply on the basic studies requirements.
ENG 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.

ENG 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: DepartmenJ permission.

ENG 225 Intermediate English Composition. 3 hrs
A course that explores the principles and strategies of effective writing with emphasis on argument and persuasion.
Prereq: ENG 121 and sophomore standing.

ENG 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: ENG 121 and two courses in literature.

ENG 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 as long as different topics are studied.
Prereq: ENG 121.

ENG 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.

ENG 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: English 121 and junior standing.

ENG 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: ENG 121 and junior standing.

ENG 328 Writing: Style and Language. 3 hrs
An advanced writing course focusing on the relationships among purpose, audience, and style with emphasis on the social and political nature of language.
Prereq: JRN 215, ENG 225, ENG 324, or ENG 326.

ENG 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 advanced literature course (200 level or above), or department or instructor’s permission.

ENG 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.
finding an appropriate outside opportunity subsequently approved by the intern supervisor; paid or non-paid. 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. ENG 324; cumulative 3.0 GPA.

ENG 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 Department of English Language and Literature.

Prereq: Nine hours in the appropriate major or minor.

ENGLISH LANGUAGE AND LINGUISTICS COURSES

LIN 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.

LIN 201 An Introduction to Linguistics. 3 hrs
An introduction to phonology, morphology, syntax, the lexicon, semantics, sociolinguistics, psycholinguistics, and other concerns.

Prereq: Sophomore standing.

LIN 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 which 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.

LIN 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.

LIN 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: LIN 201, LING 223, or AAS 101.

LIN 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.

LIN 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: ANT 135 or LIN 201 or LIN 223, and sophomore standing.

LIN 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.

LIN 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: LIN 201 or LING 223.

LIN 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.

LIN 420 Introduction to Phonology. 3 hrs
An introduction to the basic principles of modern phonology, beginning with a review of phonetics.

Prereq: LIN 401.

LIN 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: LIN 201 or LIN 401.

LIN 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: LIN 401.

LIN 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 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: LIN 401.

LIN 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.

LIN 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 Department of English Language and Literature.

Prereq: Nine hours in the appropriate major or minor.

JOURNALISM AND PUBLIC RELATIONS COURSES

JRN 213 Introduction to the Print Media. 3 hrs
An introduction 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.

JRN 215 News Writing and Reporting. 3 hrs
An introduction to newspaper reporting. Learning to gather information and to write in an approved journalistic style. Courses offer practical instruction and working exercises in interviewing, news
JRN 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 as long as different topics are studied.
Prereq: Sophomore standing.

JRN 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: JRN 215 and JRN 306.

JRN 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: JRN 215.

JRN 312 Principles of Public Relations. 3 hrs
Definition, historic aspects, evolution, and ethics of public relations; the practical use of public relations by corporations, not-for-profit organizations, businesses, institutions, and government; correlation of written, oral, and visual skills.
Prereq: JRN 215, CTA 121/124.

JRN 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.

JRN 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: JRN 312.

JRN 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.

JRN 387 Cooperative Education. 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.

JRN 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: JRN 312 and JRN 314.

JRN 423 Magazine Article Writing. 3 hrs
A writing course to develop skills in investigating and writing non-fiction articles longer and more complex than feature or background articles in daily newspapers. Emphasis on individual completion of articles of professional quality.
Prereq: ENG 328 or JRN 306 or department permission.

JRN 435 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: JRN 215.

JRN 454 Contemporary Problems in Journalism. 3 hrs
Emphasis on student investigation, reporting, and writing on selected problems such as free press vs. fair trial, media accessibility, and the people's right to know.
Prereq: Junior standing.

JRN 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: JRN 215.

JRN 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 as long as different topics are studied.
Prereq: Junior standing and department permission.

JRN 487 Cooperative Education. 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.

JRN 488/489/490 Internship. 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 non-paid. 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.

JRN 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 Department of English Language and Literature.
Prereq: Nine hours in the appropriate major or minor.
LITERATURE COURSES

Area IV basic studies requirements may be fulfilled with the following courses: LIT 100, 101, 102, 103, 204, 260.

LIT 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.

LIT 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.

LIT 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.

LIT 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.

LIT 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.

LIT/HIS 107 Society In Crisis: 1848 and 1968. 6 hrs 
A comparison and contrast of the social crises that culminated in two revolutionary aftermaths (1848 in Europe and 1968 in the United States and Europe), focusing on alienation, women, the rise of nationalism and ethnic consciousness, and the revolutionary outlook and its ultimate frustration. Team taught by members of the History and English Departments. These courses must be taken concurrently and satisfy one history requirement and one literature requirement. Note: See Honors Humanities Courses, page 30.

LIT 122 American Studies: Success and the Pursuit of Happiness in 19th Century America. 3 hrs 
An examination of the widespread 19th-century belief that worldly success produces happiness and an exploration of the proper relationship of knowledge and power, history and progress, wealth and happiness. Readings include such authors as Benjamin Franklin, H.D. Thoreau, William James, Mark Twain, and Horatio Alger. Team taught by members of the English and Philosophy Departments. This course satisfies one literature requirement. Note: See Honors Humanities Courses, page 30.

LIT 124 The Age of Wagner. 3 hrs 
An exploration of the personal, intellectual, and artistic influences on Wagner's life and work and a consideration of artists influenced by Wagner. Team taught by members of the English and Philosophy Departments. This course satisfies one literature requirement. Note: See Honors Humanities Courses, page 30.

LIT 126 The Age of Shakespeare. 3 hrs 
An introduction to basic areas of Renaissance thought as background to at least three of Shakespeare's plays, which are considered from theatrical as well as philosophical and literary points of view. Team taught by members of the English and Communication and Theatre Arts Departments. This course satisfies one literature or one theatre arts requirement. Note: See Honors Humanities Courses, page 30.

LIT 128 Russia in the Age of Tolstoy and Dostoevsky. 3 hrs 
An introduction to the rise of the revolutionary movement in Russia in the half century preceding World War I due to developments in peasant, urban, and aristocratic life. Students examine selected works of literature and some art and music. Team taught by members of the English and History Departments. This course satisfies one literature or one history requirement. Note: See Honors Humanities Courses, page 30.

LIT 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 philosophy or one literature requirement. Note: See Honors Humanities Courses, page 30.

LIT 152 From the Gay Nineties to the Crash. 3 hrs 
A series of biographical portraits providing an intensive look at profound cultural changes of the era 1890 to 1930, in both Europe and the United States. Team taught by members of the History and English Departments. This course satisfies one literature or one philosophy requirement. Students may not earn credit in both this course and LIT 300. Note: See Honors Humanities Courses, page 30.

LIT 155 Narrative in Literature and Film. 3 hrs 
An introduction to cinematic concepts and terminology, focusing primarily on narrative techniques in literature and parallel devices in film. Readings include several prose forms and a text dealing with the theory of film. Team taught by members of the English and Philosophy Departments. This course satisfies one literature or one philosophy requirement. Students may not earn credit in both this course and LIT 300. Note: See Honors Humanities Courses, page 30.

LIT 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.

LIT 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 are also 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.

LIT 201 Introduction to Science Fiction. 3 hrs 
An introduction to science fiction as a medium for speculating on science and technology, politics, social systems, education, and the nature of being human. Does not satisfy the basic studies literature requirement. Prereq: One literature course or department permission.

LIT 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 literature course or department permission.

LIT 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 non-fiction by modern writers, students will study poetry, folklore, and mythology and examine the relationship between illustration and text. Does not count toward a major or minor in curricula for teachers in junior and senior high school. Prereq: Sophomore standing.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 210</td>
<td>Introduction to Shakespeare.</td>
<td>3 hrs</td>
<td>An introduction to at least five of Shakespeare's plays with emphasis upon the tragedies. Prereq: One literature course or department permission.</td>
</tr>
<tr>
<td>LIT 245</td>
<td>Introduction to Film.</td>
<td>3 hrs</td>
<td>An introduction to the historical development of film as an art form with attention to cinematography, editing, scenarios, lighting, acting, and directing styles. Students cannot earn credit in both CTA 145 and LIT 245. Prereq: One course in literature or department permission.</td>
</tr>
<tr>
<td>LIT 251</td>
<td>The Bible as Literature.</td>
<td>3 hrs</td>
<td>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 course in literature.</td>
</tr>
<tr>
<td>LIT 260</td>
<td>African American Literature.</td>
<td>3 hrs</td>
<td>Representative American literature by black writers with emphasis upon the 20th century. Readings in poetry, fiction, drama, autobiography, and the essay. Prereq: One course in literature.</td>
</tr>
<tr>
<td>LIT 277/278/279</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>An examination of topics in literature not covered in other departmental offerings. Students may elect this course more than once as long as different topics are studied. Prereq: One course in literature.</td>
</tr>
<tr>
<td>LIT 300</td>
<td>Narrative in Literature and Film.</td>
<td>3 hrs</td>
<td>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. Not open to those with credit in LIT/PHIL 155. Prereq: Two courses in literature.</td>
</tr>
<tr>
<td>LIT 305</td>
<td>Shakespeare: The Major Comedies and Histories.</td>
<td>3 hrs</td>
<td>A study of at least eight of the principal comedies and histories. Prereq: Two literature courses or department permission.</td>
</tr>
<tr>
<td>LIT 328</td>
<td>The Rise of the American Novel to 1920.</td>
<td>3 hrs</td>
<td>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 literature courses or department permission.</td>
</tr>
<tr>
<td>LIT 330</td>
<td>The Rise of the British Novel 1720-1832.</td>
<td>3 hrs</td>
<td>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 literature courses or department permission.</td>
</tr>
<tr>
<td>LIT 331</td>
<td>The Development of the British Novel 1832-1914.</td>
<td>3 hrs</td>
<td>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 literature courses or department permission.</td>
</tr>
<tr>
<td>LIT 332</td>
<td>The Modern American Novel 1920 to Present.</td>
<td>3 hrs</td>
<td>A critical reading of significant American novels since World War I as represented by Hemingway, Fitzgerald, Faulkner, Bellow, Ellison, and others. Prereq: Two literature courses or department permission.</td>
</tr>
<tr>
<td>LIT 333</td>
<td>Modern British and European Novel 1914 to Present.</td>
<td>3 hrs</td>
<td>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, Grass. Prereq: Two literature courses or department permission.</td>
</tr>
<tr>
<td>LIT 340</td>
<td>The Rise of British Drama to 1642.</td>
<td>3 hrs</td>
<td>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 literature courses or department permission.</td>
</tr>
<tr>
<td>LIT 341</td>
<td>English Drama 1660-1779.</td>
<td>3 hrs</td>
<td>A study of the significant plays from the restoration of Charles II to the closing years of the 18th century. Prereq: Two literature courses or department permission.</td>
</tr>
<tr>
<td>LIT 342</td>
<td>The Development of Modern Drama.</td>
<td>3 hrs</td>
<td>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 courses in literature or department permission.</td>
</tr>
<tr>
<td>LIT 350</td>
<td>The Development of Modern Drama.</td>
<td>3 hrs</td>
<td>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 courses in literature or department permission.</td>
</tr>
<tr>
<td>LIT 351</td>
<td>World Mythology.</td>
<td>3 hrs</td>
<td>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 courses in literature.</td>
</tr>
<tr>
<td>LIT 352</td>
<td>Folk Literature: Ballads and Folk Tales.</td>
<td>3 hrs</td>
<td>A reading course in the traditional ballads and folk tales of Europe and North America with emphasis on those which appear in children's literature. Applies toward minor in children's literature only, but may be taken as a free elective. Prereq: Two courses in literature.</td>
</tr>
<tr>
<td>LIT 377/378/379</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied. Prereq: Department permission.</td>
</tr>
<tr>
<td>LIT 401</td>
<td>Modern British and American Poetry 1914 to Present.</td>
<td>3 hrs</td>
<td>A study of the verse of such major modern British and American poets as Yeats, Auden, Eliot, Pound, Cummings, Stevens, Williams, Thomas, Ashbery, Plath. Prereq: Three courses in literature or department permission.</td>
</tr>
<tr>
<td>LIT 409</td>
<td>The Development of American Literature.</td>
<td>3 hrs</td>
<td>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 courses in literature or department permission.</td>
</tr>
<tr>
<td>LIT 410</td>
<td>Modern American Literature.</td>
<td>3 hrs</td>
<td>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 courses in literature or department permission.</td>
</tr>
<tr>
<td>LIT 411</td>
<td>Medieval Epic and Romance.</td>
<td>3 hrs</td>
<td>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 courses in literature.</td>
</tr>
</tbody>
</table>
LIT 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 courses in literature or department permission.

LIT 413 The Poetry of Chaucer. 3 hrs
An introduction to the major works of Chaucer: a close reading of representative poetry.
Prereq: Three courses in literature or department permission.

LIT 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 courses in literature or department permission.

LIT 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 courses in literature or department permission.

LIT 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, Keats.
Prereq: Three courses in literature or department permission.

LIT 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 courses in literature or department permission.

LIT 440 Literary Types. 3 hrs
A study of the characteristics of a particular literary genre, independent of chronology, theme, or author.
Prereq: Three courses in literature or department permission.

LIT 443 Women in Literature. 3 hrs
A study of women and their experiences as described in literature.
Prereq: Two courses in literature.

LIT 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 courses in literature or department permission.

LIT 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 courses in literature or department permission.

LIT 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 as long as different topics are studied.
Prereq: Three courses in literature or department permission.

LIT 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 Department of English Language and Literature.
Prereq: Nine hours in the appropriate major or minor.

FOREIGN LANGUAGES AND BILINGUAL STUDIES

Steven D. Kirby
Department Head
219 Alexander
487-0130

Professors: JoAnn Aebersold, Ronald C. Cere, William J. Cline, E. Catherine Day, J. Sanford Dugan, James P. Holoka, John R. Hubbard, Steven D. Kirby, Benjamin W. Palmer, John Pisoni, Sharon Robertson, Reynaldo Ruiz
Associate Professors: Ana Maria McCoy, Anne G. Nerenz
Assistant Professors: Thomas Cullen, Glenn Deckert, Elisabeth Morgan, Genevieve Peden, Motoko Tabuse, Thomas Vosteen
Director, bilingual bicultural teacher education program: Phyllis Clemens-Noda

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 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; 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
- French language and literature for elementary education
- German for business
- German for secondary education
- German language and literature
- German language and literature for elementary education
- Japanese language and culture teaching for elementary education
- Japanese language and culture teaching for K-12 education
- Spanish for business
- Spanish for elementary education
- Spanish for secondary education
- Language and international trade

Minors:
- Bilingual bicultural teacher education (Spanish-English) for elementary education
- Bilingual bicultural teacher education (Spanish-English) for secondary, K-12, and special education-secondary
- Classical Studies
  - English as a second language for non-native speakers of English
  - French language and literature
  - 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

Concentration:
English as a second language for non-native speakers of English

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 before. Further details on testing are available in the department office. Students should consult advising coordinators in interpreting test results and creating a schedule.

Any course for which a student registers prior to receiving placement test results must be considered provisional. The Foreign Language 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 (non LIT):
   Department residency requirements are that majors in a foreign language must complete at EMU 12 credit hours consisting of the appropriate courses on 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 on 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 in 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, 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 MA degrees are described in the Graduate Catalog.

English as a second language
English as a second language (ESL) courses are taught in the Department of Foreign Languages and Bilingual Studies. These courses carry academic credit; up to 20 hours of ESL credits may be used as elective credits required for graduation.

Three levels of ESL 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 Admissions Office. All scores must arrive two weeks before the first day of the term.

Students admitted with an official (not institutional) score of 80 or above on the Michigan English Language Assessment Battery (MELAB) or of 500 or above on the Test of English as a Foreign Language (TOEFL) will not be required to take any ESL courses. Students admitted with scores of less than 80 or 500 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 ESL) 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 ESL courses, students must complete each course with a grade of “C” or better in order to move on to the next higher level the following semester. Students must immediately repeat all ESL courses in which they receive a “C-” or below. Students starting below the 400 level must continue to enroll in ESL courses until two 400-level courses are taken. When students have successfully completed ESL 412 and 414 or 416, their admission status is changed from conditional to regular. See page 9 under Admission Policies for information regarding conditional admission status.

Advising Coordinators:
Bilingual bicultural teacher education (Spanish): Ana Maria McCoy
English as a second language: Elisabeth Morgan
French: Benjamin W. Palmer
German: Sharon Robertson
Japanese language and culture teaching: Motoko Tabuse
TESOL: E. Catherine Day
Language and international trade: John R. Hubbard
Spanish: Ronald C. Cere
Language and world business: John R. Hubbard

As of Fall 1990, ESL 412 Academic ESL Writing (for international students) is considered the equivalent of ENG 121 English Composition. ESL 412 will therefore fulfill the Basic Studies requirement for English.

Failure to enroll in the required ESL 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 ESL.

Advising Coordinators:
Bilingual bicultural teacher education (Spanish): Ana Maria McCoy
English as a second language: Elisabeth Morgan
French: Benjamin W. Palmer
German: Sharon Robertson
Japanese language and culture teaching: Motoko Tabuse
TESOL: E. Catherine Day
Language and international trade: John R. Hubbard
Spanish: Ronald C. Cere
Language and world business: John R. Hubbard
ACADEMIC MAJORS

LANGUAGE AND WORLD BUSINESS
(JOINT BBA/BA DEGREE)

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 program provides students with both practical, on-site work experience as well as a thorough academic background in international affairs and world enterprise. (See page 208 for details.)

GROUP MAJOR IN LANGUAGE AND
INTERNATIONAL TRADE

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 skills, knowledge, and understanding needed to function in a foreign environment and in professional dealings with people and clients who speak foreign languages. Students completing this group major 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.

Sem hours

Group major in language and international trade ................. 60
1. Required courses ......................................................... 57
   a. 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 com-
      binations of business courses equivalent to a minor are
      possible in consultation with an adviser.
      MKT 460 International Marketing ............................... 3
      ECO 370 Comparative Economic Systems or ECO 480
      International Economics ...................................... 3
   b. 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 Span-
      ish—and must complete 18 hours in that chosen
      language. This 18 hour minimum must include:
      FREN/GER/JPN/SPN 361 French/German/Japanese/Spa-
      nish for International Trade; FREN/GER/JPN/SPN 446,
      447 Business French/German/Japanese/ Spanish I and II
      One additional language course at the 300 or 400 level and
      one additional language course at the 400 level.
      Students with prior language study or knowledge will be
      placed at an appropriate level in consultation with an
      advising coordinator.
      * Geography/history courses .................................. 6
      GEO/HIS 316 History and Geography of Modern Europe,
      GEO/HIS 317 History and Geography of Spanish
      America, or GEO/HIS 326 History and Geography of
      Modern Asia

These credit hours may be used as electives in history and
geography.
• Political science courses ......................................... 3

Choose one course from the following:
PLS 211 Introduction to Comparative Government, PLS 212
Introduction to International Politics, PLS 341
International Law, PLS 342 International Organiza-
ations, PLS 354 Government and Politics of Canada,
PLS 367 Contemporary Political Systems of Latin
America, PLS 412 Comparative Legal Systems

2. Field experience ............................................................ 3
FLA 489 Internship or FLA 387/487 Cooperative Education

GROUP MAJOR IN LANGUAGE, JOURNALISM,
TELECOMMUNICATIONS, AND FILM

Sem hours

Group major in language, Journalism, telecommunications,
and film ............................................................... 60

Language component ................................................... 20
Choose one of the languages (French, German, or Spanish)
and complete the following:
1. Required courses ..................................................... 12
   FREN/GER/JPN/SPN 343 Composition ......................... 3
   FREN/GER/JPN/SPN 344 Conversation ......................... 3
   FREN/GER/JPN/SPN 443 Advanced Grammar and
   Composition ....................................................... 3
   FREN/GER/JPN/SPN 444 Advanced Conversation ............ 3
   Students with advanced language proficiency will select
   appropriate courses in consultation with the advising
   coordinator

2. Restricted electives ..................................................... 8
   Choose eight credits in the language studied at any level

Journalism component ................................................ 18-21
1. Required courses ..................................................... 12
   JRN 215 News Writing and Reporting ......................... 3
   JRN 306 Feature Writing ..................................... 3
   JRN 307 Copy Editing ......................................... 3
   JRN 453 Advanced Reporting ................................ 3

2. Restricted electives ..................................................... 6-9
   Choose six to nine credits from the following:
   JRN 311 Editing Procedures, JRN 313 History of American
   Journalism, JRN 314 Writing for Public Relations,
   JRN 423 Magazine Article Writing, JRN 454 Contem-
   porary Problems in Journalism
   ENG 417 Writing about Controversies, ENG 422 Writer's
   Workshop: Fiction or Poetry, ENG 424 Technical
   Writing

Telecommunications and film component ......................... 20-21
1. Required courses ..................................................... 15
   CTA 130 Introduction to Telecommunications and Film .... 3
   CTA 334 Radio-Television News ................................ 3
   CTA 336 Studies in Telecommunications ...................... 3
   CTA 374 Intercultural Communication ....................... 3
   CTA 479 Special Topics: Seminar in International
   Telecommunications Issues ................................... 3

2. Restricted electives ..................................................... 5-6
   Choose five to six credits from the following:
   CTA 145 Introduction to Film Appreciation, CTA 165 Televi-
   sion Laboratory, CTA 169 Radio Station WQBR, CTA
   227 Interpersonal Communication, CTA 236 History and
   Criticism of Radio and Television, CTA 241 Radio-
   Television-Film Announcing, CTA 331 Fundamentals
   of Radio Production and Direction, CTA 332 Fundamen-
   tals of Television Production and Direction, CTA 335
   Studies in Film, CTA 344 Continuity Writing for Radio-


FRENCH MAJOR

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.

Sem hours

Major in French ........................................................ 30
1. Required courses .................................................. 24
   FRN 341-342 Survey of French Literature ................. 6
   FRN 343 French Composition .................................. 3
   FRN 344 French Conversation .................................. 3
   FRN 443 Advanced French Grammar and Composition ... 3
   FRN 444 Advanced French Conversation .................... 3
2. Restricted electives ............................................. 6
Choose six credits at the 400 level; choose an additional six credits in French at any level.

FRENCH FOR BUSINESS MAJOR

Students majoring or minoring in business French are eligible to take examinations leading to the "Diplomme Superieur de Francais des Affaires" or the "Certificat Pratique de Francais 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.

Sem hours

Major in business French ........................................... 30
1. Required courses .................................................. 24
   FRN 341-342 Survey of French Literature ................. 6
   FRN 343 French Composition .................................. 3
   FRN 344 French Conversation .................................. 3
   FRN 443 Advanced French Grammar and Composition ... 3
   FRN 444 Advanced French Conversation .................... 3
   Business French I-II ........................................... 6
2. Restricted electives ............................................. 6
Choose six credits in French at any level.

GERMAN LANGUAGE AND LITERATURE MAJOR

Sem hours

Major in German language and literature ..................... 30
1. Required courses .................................................. 18
   GER 341-342 Survey of German Literature ................. 6
   GER 343 German Composition .................................. 3
   GER 344 German Conversation .................................. 3
   GER 443 German Syntax and Advanced Composition ....... 3
   GER 444 Advanced German Composition ....................... 3
2. Restricted electives ............................................. 12
Choose six credits in German at the 400 level; choose six credits in German at any level.

GERMAN FOR BUSINESS MAJOR

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 EMU.

Sem hours

Major in business German ........................................... 30
1. Required courses .................................................. 24
   GER 341-342 Survey of German Literature ................. 6
   GER 361 German for International Trade ................. 3
   GER 443 German Syntax and Advanced Composition ....... 3
   Business German I-II ........................................... 6
   Additional German courses at the 400 level ............... 6
Choose six credits in German at any level.

SPANISH MAJOR

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.

Sem hours

Major in Spanish ..................................................... 30
1. Required courses .................................................. 12
   SPN 343 Spanish Grammar and Composition ............... 3
   SPN 344 Spanish Conversation and Composition ........... 3
   SPN 443 Advanced Spanish Grammar and Composition .... 3
   SPN 444 Advanced Spanish Conversation and Composition ... 3
2. Restricted electives ............................................. 18
Choose 12 credits in Spanish at the 300 level or above; choose six credits at any level in consultation with the advising coordinator.

SPANISH FOR BUSINESS MAJOR

Students with concentrations in business Spanish may take examinations leading to the "Diploma de Espanol Comercial" and the "Certificado de Espanol Comercial Basico" 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.

Sem hours

Major in business Spanish ........................................... 30
1. Required courses .................................................. 24
   SPN 301 The Cultures of Spain ................................ 3
   SPN 302 The Cultures of Spanish America ................. 3
   SPN 342 Survey of Spanish Literature ....................... 3
   SPN 352 Survey of Spanish American Literature ........... 3
   SPN 361 Spanish for International Trade ................. 3
   SPN 443 Advanced Spanish Grammar and Composition ... 3
   SPN 456 Scientific and Technical Spanish I .......... 3
   SPN 446-447 Business Spanish ................................. 6
2. Restricted electives ............................................. 6
Choose six credits in Spanish at any level in consultation with the advising coordinator.

ACADEMIC MINORS

CLASSICAL STUDIES MINOR

Sem hours

Minor in Classical Studies ......................................... 23-25
1. Required courses .................................................. 12
   FA 340 History of Classical Art ............................... 3
   HIS 323 Greek History ........................................... 3
   HIS 324 Roman History .......................................... 3
   PHI 230 History of Philosophy: Ancient ................. 3
2. Restricted electives* ............................................ 11-13
Choose one of the following groups:
Group A (Greek Language) .......................................... 13
   GRK 121-122 Beginning Ancient Greek I-II .............. 10
   FLA 499 Independent Study .................................... 3
Group B (Latin Language) ........................................... 13
   LAT 121-122 Beginning Latin I-II ............................ 10
FLA 499 Independent Study .................................... 3
Group C (Classical Culture and Heritage) .................. 11-12
Two of: .................................................................. 6
CLA/LIT 106 Rome and America (3)
CLA/LIT 181 The Legacy of Greece (3)
LNG 134 Etymology (3)
Two of: .................................................................. 5-6
LNG 205 English Words (3)
CLA 301 Mythology (3)
HIS 302 Near Eastern and Western Religions (3)
HIS 327 Europe in the Making, 500-1300(3)
HIS 330 Europe in the Renaissance and Reformation (3)
LIT 351 World Mythology (3)
HIS 511 Ancient History (2)
*Certain independent study and special topic courses may be counted as restricted electives with the approval of the advising coordinator.

GROUP MINOR IN TEACHING ENGLISH AS A SECOND LANGUAGE

Group minor in Teaching English as a Second Language ...... 24

1. Required courses ....................................................... 15
   LIN 223 Introduction to Language ............................... 3
   CTA 374 Intercultural Communication .......................... 3
   TSL 410 TESOL Methods ........................................... 3
   TSL 420 Materials and Tests for TESOL ......................... 3
   LNG 425 Second Language Acquisition ....................... 3

2. 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 2 courses from either Group 2 or 3, and one course from the remaining group.

   Group 1
   LIN 401 Introduction to Linguistic Science .................... 3
   LIN 402 Modern English Grammar ............................. 3

   Group 2
   CTA 225 Listening Behavior ........................................ 3
   CTA 226 Non-Verbal Communication ............................ 3
   PSY 304 Learning ..................................................... 3
   CTA 323 Improvising and Role-Play ............................ 3
   ENG 328 Writing: Style and Language ......................... 3
   SLI 337 Language Acquisition .................................... 3
   CTA 359 Small Group Communication ......................... 3

   Group 3
   SOC 214 Racial and Cultural Minorities ...................... 3
   SOC 310 Contemporary American Class Structure .......... 3
   (Only international students may use this course)
   AN1/LIN 340 Language and Culture ............................ 3
   Prereq. or Coreq.: One year of university foreign language study.

ENGLISH AS A FOREIGN LANGUAGE FOR NON-NATIVE SPEAKERS OF ENGLISH MINOR

This minor is limited to international students who are non-native speakers of English and conditionally admitted to the University on the basis of English language proficiency. It is administered jointly by the Department of Foreign Languages and Bilingual Studies and the Department of English Language and Literature. Students who have placed 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 ESL 412 Academic ESL Writing and ESL 414 Academic ESL Reading and/or ESL 416 Academic ESL Speaking and Listening. These students must choose 6 credit hours from the restricted electives or other courses with the permission of the advisor.

Sem hours

Minor in English as a foreign language for non-native speakers of English .............................................. 23-24

1. Required courses ....................................................... 21
   ESL 310, 312 Advanced ESL Grammar and Writing ........ 3
   ESL 314, 316 Advanced ESL Reading, Speaking, and Listening .................................................. 3
   ESL 412 Academic ESL Writing ..................................... 3
   ESL 414 Academic ESL Reading ..................................... 3
   ESL 416 Academic ESL Speaking and Listening ............ 3
   ENG 225 Intermediate English Composition or other approved English writing course (written permission required) .................................................. 3
   ENG 326 Research Writing ........................................... 3

2. Restricted elective ........................................................ 3

   Choose one course from the following:
   LIN 201 An Introduction to Linguistics, LIN 402 Modern English Grammar, or other English language or linguistics course (written permission required)
   CTA 224 Public Speaking, CTA 350 Persuasion, CTA 356 Argumentation and Debate, CTA 359 Small Group Communication, or other speech communication course (written permission required)
   Other advanced (speech) courses not including theatre arts courses, with written permission from the ESL coordinator

FRENCH LANGUAGE AND LITERATURE MINOR

Minor in French language and literature .............................................. 20

1. Required courses ....................................................... 12
   FRN 341-342 Survey of French Literature .................... 6
   FRN 343 French Composition ....................................... 3
   FRN 344 French Conversation ...................................... 3

2. Restricted electives ........................................................ 8

   Choose eight credits in French at any level

FRENCH LANGUAGE MINOR

Minor in French language .............................................. 20

1. Required courses ....................................................... 12
   FRN 343 French Composition ....................................... 3
   FRN 344 French Conversation ...................................... 3
   FRN 443 Advanced French Grammar and Composition ...... 3
   FRN 444 Advanced French Conversation ....................... 3

2. Restricted electives ........................................................ 8

   Choose eight credits in French at any level

FRENCH LITERATURE MINOR

Minor in French literature .............................................. 20

1. Required courses ....................................................... 12
   FRN 341-342 Survey of French Literature .................... 6
   Courses in French literature at the 400 level .................. 6

2. Restricted electives ........................................................ 8

   Choose eight credits in French at any level

BUSINESS FRENCH MINOR

Students minoring in business French are eligible to take the examinations listed under the major in business French.
# Minor in Business German

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRN 343</td>
<td>French Composition</td>
<td>3</td>
</tr>
<tr>
<td>FRN 344</td>
<td>French Conversation</td>
<td>3</td>
</tr>
<tr>
<td>FRN 443</td>
<td>Advanced French Grammar and Composition</td>
<td>3</td>
</tr>
<tr>
<td>FRN 444</td>
<td>Advanced French Conversation</td>
<td>3</td>
</tr>
</tbody>
</table>

## 2. Restricted electives

Choose two credits in French at any level.

# German Language and Literature Minor

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER 341-342</td>
<td>Survey of German Literature</td>
<td>6</td>
</tr>
<tr>
<td>GER 343</td>
<td>German Composition</td>
<td>3</td>
</tr>
<tr>
<td>GER 344</td>
<td>German Conversation</td>
<td>3</td>
</tr>
</tbody>
</table>

## 2. Restricted electives

Choose eight credits in German at any level.

# Japanese Language Minor

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPN 343-344</td>
<td>Advanced Spanish Grammar and Composition</td>
<td>6</td>
</tr>
</tbody>
</table>

Choose either of the following options:

- a. SPN 443 Advanced Spanish Grammar and Composition
- b. Additional courses in Spanish at the 300 level or above

## 2. Restricted electives

Choose eight credits in Spanish at any level in consultation with the advising coordinator.

# Spanish Language Minor

## 1. Required courses

- SPN 341 Survey of Spanish Literature, SPN 342 Survey of Spanish American Literature, SPN 351 Survey of Spanish American Literature, SPN 352 Survey of Spanish American Literature

Choose six credits in Spanish at the 300 level or above (students on teaching curricula should include SPN 343 Spanish Grammar and Composition, SPN 344 Spanish Conversation and Composition)

## 2. Restricted electives

Choose eight credits in Spanish at any level in consultation with the advising coordinator.

# Spanish Literature Minor

## 1. Required courses

- SPN 301 The Cultures of Spain, SPN 302 The Cultures of Spanish America

Choose six credits in Spanish at the 300 level or above

## 2. Restricted electives

Choose eight credits in Spanish at any level in consultation with the advising coordinator.

# Spanish Culture Minor

## 1. Required courses

- SPN 301 The Cultures of Spain, SPN 302 The Cultures of Spanish America

Choose six credits in Spanish at the 300 level or above (students on teaching curricula should include SPN 343 Spanish Grammar and Composition, SPN 344 Spanish Conversation and Composition)

## 2. Restricted electives

Choose eight credits in Spanish at any level in consultation with the advising coordinator.

# Business Spanish Minor

Examinations listed under the major in business Spanish may be taken by students minoring in this subject.

## Language proficiency

Language proficiency in both Spanish and English is required; proficiency will be determined by examination.

# Business Spanish Minor

## 1. Required courses

- SPN 301 The Cultures of Spain, SPN 302 The Cultures of Spanish America
- SPN 342 Survey of Spanish Literature or SPN 352 Survey of Spanish American Literature
- SPN 361 Spanish for International Trade
- SPN 446 Business Spanish

## 2. Restricted electives

Choose eight credits in Spanish at any level in consultation with the advising coordinator.
TEACHING MAJORS

FRENCH MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education 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."

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. FRN 234 Intermediate French (Reading) (3)*
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. See inside back cover
IV-B-1. FRN 341 Survey of French Literature (3)*
IV-B-2. FRN 342 Survey of French Literature (3)*
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ........................................... 49

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.
FRN 343 French Composition (3)
FRN 344 French Conversation (3)
FRN 443 Advanced French Grammar and Composition (3)
FRN 444 Advanced French Conversation (3)
Six credits in French at the 400-level
Six credits in French at any level

Minor

A minor from the approved list (see p. 230)

Subtotal, Major and minor: ........................................... 44

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
FLA 411 Theory and Methods of Modern Language Teaching (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ................................ 34

Total credit hours required, with 20-hour minor: ............... 127

GERMAN LANGUAGE AND LITERATURE MAJOR

SECONDARY TEACHER CERTIFICATION

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."

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. GER 233/234 Intermediate German Reading (3)*
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. GER 341 Survey of German Literature (3)*
IV-B-2. GER 342 Survey of German Literature (3)*
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ........................................... 49

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.
GER 343 German Composition (3)
GER 344 German Conversation (3)
GER 443 German Syntax and Advanced Composition (3)
GER 444 Advanced German Conversation (3)
Six credits in German at the 400-level (3)
Six credits in German at any level (3)

Minor

A minor from the approved list (see p. 230)

Subtotal, Major and minor: ........................................... 44

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)
The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SPD 332 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
FLA 411 Theory and Methods of Modern Language Teaching (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: 34
Total credit hours required: 149

GERMAN LANGUAGE AND LITERATURE MAJOR
ELEMEIry TEACHER CERTIFICATION

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.”

The curriculum for this major is that which is listed under “Teaching Major” in the secondary German program, plus the requirements under I-B-3, IV-B-1, and IV-B-2 in that program’s Basic Studies requirements. Approved minors are those for the elementary program as given on page 230.

24 hours, not including the minor and not counting course work that may be satisfied through Basic Studies.

JAPANESE LANGUAGE AND CULTURE TEACHING MAJOR
K-12 TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in Japanese, certification code “FL.” The certification test covering this field has not yet been developed.

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. See inside back cover
I-B-3. JPN 211 Intermediate Japanese (5)*
I-B-4. See inside back cover
I-B-5. See inside back cover
II-B-1. See inside back cover
II-B-2. See inside back cover
II-B-3. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. One of:
   - HIS 103 Twentieth Century Civilization (3)
   - HIS 106 Asian and African Civilizations (3)
III-B-3. GEO 110 World Regions (3)*
   - ANT 135 Introduction to Cultural Anthropology (3)*
     A course in economics (3)*
III-B-4. See inside back cover
IV-B-3. See inside back cover
IV-B-1. See inside back cover
IV-B-2. See inside back cover
IV-B-4. See inside back cover
Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: 57

Teaching Major
See note “a” above for courses applicable to both Basic Studies and the major.

- LNG 223 Introduction to Language (3)
- JPN 312 Intermediate Japanese (5)
- JPN 344 Japanese Conversation (3)
- JPN 361 Japanese for International Trade (3)
- JPN 444 Advanced Japanese Conversation (3)
- HIS 326 History and Geography of Modern Asia (3)
- GEO 326 History and Geography of Modern Asia (3)
- JPN 494 Seminar in Japanese Studies (3)
- ANT 245 Culture of Japan (3)
- EDU 492 Student Teaching (12)

Credit hours in Professional Studies: 34
Total credit hours required: 149

*Course required for and applicable to major.
*Could be less, depending on the minor and possible application of Basic Studies courses to the minor.

JAPANESE LANGUAGE AND CULTURE TEACHING MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in Japanese language and culture, certification code “FL.”

The curriculum for this major is that which is listed under “Teaching Major” in the K-12 Japanese language and culture teaching program.
plus the requirements under I-B-3, III-B-2, and III-B-3 in that program's Basic Studies requirements. Approved minors are those for the elementary program as given on page 230.

54 hours, not including the minor and not including course work that may be satisfied through Basic Studies.

**SPANISH MAJOR**

**SECONDARY TEACHER CERTIFICATION**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in Spanish, certification code “FF,” and, depending on the minor selected, an additional endorsement. The certification test covering this field is #28, “Spanish.”

**Basic Studies**

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. SPN 201/202 Intermediate Spanish (3)*
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1 and IV-B-2. Either:* SPN 221-222 Intermediate Spanish Reading (6) or SPN 341-342 Survey of Spanish Literature (6)

**Physical education**, military science, or equivalent (2)

*Course required for and applicable to major.

**Credit hours in Basic Studies:** ......................... 49

**Teaching Major**

See note “a” above for courses applicable to both Basic Studies and the major.

SPN 343 Spanish Grammar and Composition (3)
SPN 344 Spanish Conversation and Composition (3)
SPN 443 Advanced Spanish Grammar and Composition (3)
SPN 444 Advanced Spanish Conversation and Composition (3)

Twelve credits in Spanish at the 300-level or above
Six credits in Spanish at any level, in consultation with an adviser

**Minor**

A minor from the approved list (see p. 230)

**Subtotal, Major and minor:** ........................................... 50

**Professional Studies**

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
FLA 411 Theory and Methods of Modern Language Teaching (3)
EDU 492 Student Teaching (12)

**Credit hours in Professional Studies:** ......................... 34

**Total credit hours required, with 20-hour minor:** ............... 133

**SPANISH**

**ELEMENTARY TEACHER CERTIFICATION**

Successful completion of this major, 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.” The curriculum for this major is that which is listed under “Major” in the secondary Spanish program, plus the requirements under I-B-3, IV-B-1, and IV-B-2 in that program’s Basic Studies requirements. Approved minors are those for the elementary program as given on page 230.

30 hours, not including the minor and not including course work that may be satisfied through Basic Studies.

**TEACHING MINORS**

**FRENCH LANGUAGE MINOR**

**SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in French, certification code “FA.” The certification test covering this field is #23, “French.”

The curriculum for this minor is that which is listed under “Major” in the secondary French program, plus the requirements under I-B-3, IV-B-1, and IV-B-2 in that program’s Basic Studies requirements. Approved minors are those for the elementary program as given on page 230.

20 hours

**GERMAN LANGUAGE MINOR**

**SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in German, certification code “FB.” The certification test covering this field is #24, “German.”

The curriculum for this minor is that which is listed under “Major” in the secondary German program, plus the requirements under I-B-3, IV-B-1, and IV-B-2 in that program’s Basic Studies requirements. Approved minors are those for the elementary program as given on page 230.

20 hours

**BILINGUAL-BICULTURAL EDUCATION SPANISH-ENGLISH MINOR**

**ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in Spanish, certification code “FF.” The certification test covering this field is #28, “Spanish.”

The curriculum for this minor is that which is listed under “Major” in the secondary Spanish program, plus the requirements under I-B-3, IV-B-1, and IV-B-2 in that program’s Basic Studies requirements. Approved minors are those for the elementary program as given on page 230.

30 hours, not including the minor and not including course work that may be satisfied through Basic Studies.
for endorsement in bilingual Spanish, certification code “ZF.” The certification test covering this field is #70, “Bilingual Spanish.” Language proficiency in both Spanish and English as determined by examination.

FRA 421 History and Theory of Bilingual Education (3)
FRA 422 Teaching Hispanic Culture and Language (3)
TSL 410 TESOL Methods (3)
SPN 471 Culture and Literature of the Hispanic Groups in the United States (3)
SPN 481 Language of the Hispanic Groups in the United States (3)

Nine hours from:
ANT 233 Peoples and Cultures of Mexico (3)
FLA 215 The Culture of the Latino Groups in the United States (3)
LNG 223 Introduction to Language (3)
LIN 201 An Introduction to Linguistics (3)
LIN 401 Introduction to Linguistic Science (3)
LIN 402 Modern English Grammar (3)
GEO 321 Geography of Latin America (3)
HIS 457 History of Mexico (3)
PSY 340 Psychological Perspectives on Prejudice and Discrimination (3)
SOC 214 Racial and Cultural Minorities (3)
SPN 443 Advanced Spanish Grammar and Composition (3)
SPN 444 Advanced Spanish Conversation and Composition (3)

Four semester hours of student teaching must be with English-speaking pupils and four semester hours of student teaching must be in bilingual education.

24 hours

SPANISH LANGUAGE MINOR
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in Spanish, certification code “FF.” The certification test covering this field is #28, “Spanish.”

SPN 343 Spanish Grammar and Composition (3)
SPN 344 Spanish Conversation and Composition (3)

One of:
Either SPN 443 Advanced Spanish Grammar and Composition (3) and SPN 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.

20 hours

FRENCH COURSES
FRN 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 basic studies foreign language composition requirement, Area I.

FRN 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 basic studies foreign language composition requirement, Area I.

Prereq: FRN 121 or equivalent. Placement exam required.

FRN 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.

FRN 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 FRN 233. Satisfies basic studies intermediate or advanced foreign language literature requirement, Area IV.

Prereq: FRN 122 or equivalent. Placement exam required.

FRN 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 FRN 234. Satisfies basic studies intermediate or advanced foreign language literature requirement, Area IV.

Prereq: FRN 221 or equivalent. Placement exam required.

FRN 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 FRN 223. Does not satisfy basic studies literature requirement. Satisfies basic studies foreign language composition requirement, Area I.

Prereq: FRN 122 or equivalent. Placement exam required.

FRN 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 FRN 222. Does not satisfy basic studies literature requirement. Satisfies basic studies foreign language composition requirement, Area I.

Prereq: FRN 233 or equivalent. Placement exam required.

FRN 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 as long as different topics are studied.

Prereq: Department permission.

FRN 341/342 Survey of French Literature

3 hrs each
This survey course covers major authors and literary movements from the beginning of French literature to the 19th century. In French. Satisfies basic studies intermediate or advanced foreign language literature requirement, Area IV.

Prereq: FRN 222 or department permission.

FRN 343 French Composition

3 hrs
Review and drill of intermediate and advanced linguistic patterns in French. Written compositions.

Prereq: FRN 234 or department permission.

FRN 344 French Conversation

3 hrs
Additional classwork in conversation: improving pronunciation and acquiring a larger active vocabulary for daily life.

Prereq: FRN 234 or department permission.

FRN 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: FRN 343 or department permission.
FRN 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 as long as different topics are studied.
Prereq: Department permission.

FRN 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.

FRN 431 Studies in French Theatre. 3 hrs
A study of selected 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: FRN 341, 342 or department permission.

FRN 432 Studies in French Poetry. 3 hrs
A study of selected 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: FRN 341, 342 or department permission.

FRN 433 Studies in French Prose. 3 hrs
A study of selected 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. In French.
Prereq: FRN 341, 342 or department permission.

FRN 443 Advanced French Grammar and Composition. 3 hrs
Review and practice of advanced syntactical patterns. Practice in composition. Taught in French.
Prereq: FRN 343.

FRN 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: FRN 343 and FRN 344, or department permission.

FRN 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: FRN 361 or department permission.

FRN 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 Frenchities with the European Economic Community, the U.S.A., the East, developing countries, and francophone countries. Prepares student for language proficiency examinations (CCIP diplomas).
Prereq: FRN 446 or department permission.

FRN 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: FRN 341, 342 or department permission.

FRN 456 Scientific and Technical French. 3 hrs
In-depth study of French scientific and technical vocabulary and terminology needed for Franco-American business interaction in three scientific and technical fields. Topics covered may include food industry, automobile, mass transportation, and energy. In French.
Prereq: Any two 300-level French courses or department permission.

FRN 457 Scientific and Technical French. 3 hrs
Study of French scientific and technical vocabulary and terminology in three scientific and technical fields not covered in FRN 456. Topics may include electronics, computers, glass, or robotics. In French.
Prereq: Any two 300-level French courses or department permission.

FRN 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: FRN 343 and FRN 344.

FRN 467 French Culture and 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: FRN 343 or department permission.

FRN 471/472/473 Studies. 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times as long as different topics are studied.
Prereq: Department permission.

FRN 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.

FRN 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 100-200 levels. May be repeated for credit.

FRN 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

GER 121 Beginning German. 5 hrs
Instruction includes pronunciation, aural-oral pattern practice, the fundamentals of grammar, written exercises, and reading. Laboratory attendance is required. Satisfies Area I 3c of basic studies requirements.

GER 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 non-verbal 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 Area I 3c of the basic studies requirements.
Prereq: GER 121 or equivalent. Placement examination required.
GER 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.

GER 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 GER 233, 234 concurrently with GER 221, 222. Satisfies Area IV of basic studies requirements.
Prereq: GER 122 or equivalent. Placement examination required.

GER 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 GER 233, 234 concurrently with GER 221, 222. Satisfies Area IV of basic studies requirements.
Prereq: GER 122 or equivalent. Placement examination required.

GER 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: GER 122 or equivalent.

GER 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: GER 233 or equivalent.

GER 277/278/279 Special Topics. 1/2/3 hrs
These courses deal with subject matter not provided in other departmental offerings. Students may elect such a course several times as long as different topics are studied.
Prereq: GER 341, 342 or department permission.

GER 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: GER 222 or department permission.

GER 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 GER 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: GER 222 and GER 341, or department permission.

GER 343 German Composition. 3 hrs
Writing for a variety of purposes and a systematic grammar review. Frequent written assignments. Taught in German.
Prereq: GER 234 or department permission.

GER 344 German Conversation. 3 hrs
Builds on the foundation of speaking skills acquired in GER 233, 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: GER 234 or department permission.

GER 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: GER 343 or department permission.

GER 377/378/379 Special Topics. 1/2/3 hrs
These courses deal with subject matter not provided in other departmental offerings. Students may elect such a course several times as long as different topics are studied.
Prereq: Department permission.

GER 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.

GER 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: GER 341, 342 or department permission.

GER 426 German Literature from 1750-1850. 3 hrs
The literature of Germany from the pre-classical 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. Taught in German.
Prereq: GER 341, 342 or department permission.

GER 427 German Literature from 1850-1945. 3 hrs
Selections from the literature of Romanticism, Realism, Naturalism, Neo-Romanticism, and Expressionism viewed against the background of political and cultural history. Classroom discussion and student reports.
Prereq: GER 341, 342 or department permission.

GER 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: GER 341, 342 or department permission.

GER 443 German Syntax and Advanced Composition. 3 hrs
Builds on the foundation in written expression acquired in GER 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: GER 343 and GER 344, or department permission.

GER 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: GER 343 and GER 344, or department permission.

GER 446 Business German L 3 hrs
The idioms 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.
GER 447 Business German II. 3 hrs
The idioms and terminology of the German economy and economic geography. Emphasis on business communication in German. Prereq: GER 446 Business German I or department permission.

GER 451/452 Readings in German. 1/2 hrs
Special projects in directed reading for majors and minors who have completed the required offerings in German or who, because of most unusual circumstances, are granted department approval to substitute this for the regular courses. Prereq: Department permission.

GER 456 Technical German I. 3 hrs
Specialized vocabulary and jargon used in selected fields of technology. Basic technical concepts and terminology that students may encounter in German industry. Development of oral and reading facility as well as accurate translation of technical documents. Content areas will occasionally be changed and updated in order to keep pace with changed student needs and changes in technology. Prereq: GER 343 or Department permission.

GER 457 Technical German II. 3 hrs
Specialized vocabulary and jargon used in selected fields of technology. Basic technical concepts and terminology that students may encounter in German industry. Development of oral and reading facility as well as accurate translation of technical documents. Content areas will occasionally be changed and updated in order to keep pace with changed student needs and changes in technology. Prereq: GER 456 or Department permission.

GER 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: GER 343 and GER 344.

GER 477/478/479 Special Topics. 1/2 hrs
These courses deal with subject matter not provided in other departmental offerings. Students may elect such a course several times as long as different topics are studied. Prereq: Department permission.

GER 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.

GER 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 100-400 level. May be repeated for credit.

GER 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

JPN 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 Area I 3.c of the basic studies requirements.

JPN 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 Area I 3.c of the basic studies requirements. Prereq: JPN 121 or equivalent.

JPN 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.

JPN 211 Intermediate Japanese. 5 hrs
Practice in intermediate Japanese conversation, with heavy emphasis on reading and writing common ideographs in non-technical text. Laboratory attendance required. Satisfies Area I 3.c of the basic studies requirements. Prereq: JPN 122 or equivalent.

JPN 212 Intermediate Japanese. 5 hrs
Instruction includes practice in intermediate Japanese conversation, with heavy emphasis on reading and writing common ideographs in non-technical text. Laboratory attendance required. Satisfies Area I 3.c of the basic studies requirements. Prereq: JPN 211 or equivalent.

JPN 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.

JPN 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: JPN 212 or department permission.

JPN 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: JPN 344 or department permission.

JPN 361 Japanese for International Trade. 3 hrs

JPN 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.

JPN 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: JPN 345 or department permission.
### JPN 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: JPN 361 and JPN 444, or department permission.

### JPN 447 Business Japanese II
3 hrs
The course provides an overview of the system of organization, management style, and personnel relations of the Japanese company. Study of business communication focuses on business correspondence and translation in Japanese.
Prereq: JPN 446 or department permission.

### JPN 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.

### JPN 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: JPN 361 or department permission.

### SPANISH COURSES

#### SPN 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 basic studies foreign language composition requirement, Area I.

#### SPN 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 basic studies foreign language composition requirement, Area I.
Prereq: SPN 121 or equivalent. Placement exam required.

#### SPN 134 Spanish for the Bilingual
5 hrs
Basic grammar and composition for students with an oral command of Spanish. Conducted in Spanish. Prepares the student for entry into more advanced Spanish classes.
Prereq: Native command of oral Spanish and department permission.

#### SPN 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.

#### SPN 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 basic studies foreign language composition requirement, Area I. Does not satisfy the basic studies literature requirement.
Prereq: SPN 122 or equivalent. Placement exam required.

#### SPN 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 basic studies foreign language composition requirement, Area I. Does not satisfy the basic studies literature requirement.
Prereq: SPN 201 or equivalent.

#### SPN 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 basic studies requirements.
Prereq: SPN 202 or department permission.

#### SPN 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 basic studies requirements.
Prereq: SPN 221 or department permission. Placement exam required.

#### SPN 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 as long as different topics are studied.
Prereq: Department permission.

#### SPN 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: SPN 202 and SPN 222, or department permission.

#### SPN 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: SPN 202 and SPN 222, or department permission.

#### SPN 304 Survey of Spanish American 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 basic studies literature requirement, Area IV.
Prereq: SPN 222 or department permission.

#### SPN 311/312/313 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 as long as different topics are studied.
Prereq: Department permission.

#### SPN 332 Spanish Conversation and Composition
3 hrs
A systematic review of Spanish grammar and practice in composition. Frequent written assignments.
Prereq: SPN 202 and SPN 222, or department permission.

#### SPN 343 Spanish Grammar and Composition
3 hrs
A systematic review of Spanish grammar and practice in composition. Frequent written assignments.
Prereq: SPN 202 and SPN 222, or department permission.

#### SPN 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: SPN 202 and SPN 222, or department permission.

#### SPN 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: SPN 222 or department permission.

#### SPN 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: SPN 222 or department permission.

#### SPN 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: SPN 343 or department permission.

SPN 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 as long as different topics are studied.

Prereq: Department permission.

SPN 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.

SPN 443 Advanced Spanish Grammar and Composition. 3 hrs
A review of selected points of Spanish grammar and extensive practice in writing Spanish.

Prereq: SPN 343 and SPN 344, or department permission.

SPN 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: SPN 343 and SPN 344, or department permission.

SPN 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: SPN 352 or department permission.

SPN 446, 447 Business Spanish. 3 hrs each
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: SPN 361 or department permission.

SPN 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: SPN 342 or department permission.

SPN 449 Romanticism. 3 hrs
A study of the major works of Hispanic Romanticism. In Spanish.

Prereq: SPN 342 or department permission.

SPN 450 Spanish-American Theatre. 3 hrs
A study of the theatre in Spanish America from its beginning to the present. In Spanish.

Prereq: SPN 352 or department permission.

SPN 451/452/453 Readings in Spanish. 1/2/3 hrs
Special projects in directed readings for majors or minors who have completed the available offerings in Spanish or who, because of unusual circumstances, are granted departmental approval to substitute this for regular courses.

Prereq: Department permission.

SPN 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: SPN 352 or department permission.

SPN 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: SPN 342 or department permission.

SPN 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: SPN 343 or department permission.

SPN 457 Scientific and Technical Spanish II. 3 hrs
Study of the fundamental Spanish terminology required for scientific and technical contexts, including basic vocabulary for computers, chemistry, and biology. In-depth study of at least one scientific or technical field (e.g., data processing, nutrition). Students will explore the vocabulary and resources in their chosen fields.

Prereq: SPN 456 or department permission.

SPN 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: SPN 341 or department permission.

SPN 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: SPN 341 or department permission.

SPN 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: SPN 342 or department permission.

SPN 466 Spanish for International Affairs. 3 hrs
The political structures, issues, and realities of Spain, Mexico, and a representative sample of Spanish-speaking countries (may vary from semester to semester) and their relationship to international affairs and business, particularly with the U.S. In Spanish.

Prereq: SPN 343, SPN 344, SPN 301, SPN 302, or department permission.

SPN 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.

SPN 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 as long as different topics are studied.

Prereq: Department permission.

SPN 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. Good skills in Spanish and at least one
introduction course in linguistics are strongly recommended. A minimum of 24 hours of field experience required.

**SPN 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.*

**SPN 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 100-400 levels. May be repeated for credit.

**SPN 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**

**FLA 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.*

**FLA 215 The Culture of the Latino Groups in the United States.** 3 hrs
A study of contemporary life 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.

**FLA 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 as long as different topics are studied.
*Prereq: Department permission.*

**FLA 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 as long as different topics are studied.
*Prereq: Department permission.*

**FLA 387 Cooperative Education.** 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 (FLA 387 and FLA 487) alternated with full-time attendance at the University. Credit/no credit.
*Prereq: Junior standing; admission to the program by application only.*

**FLA 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.*

**FLA 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, FRNISP/GER 343 or department permission.*

**FLA 412 Methods of Teaching Modern Language in Elementary Grades.** 3 hrs
The technique and materials of teaching foreign language in the elementary grades. 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, FRNISP/GER 343 or department permission.*

**FLA 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.

**FLA 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.

**FLA 423 Bilingual Multicultural Methods K-12.** 3 hrs
Identification and study of methods appropriate for the diverse ethnolinguistic groups comprising the school community. Focus on appropriate strategies with an impact on learning styles, achievement, and school socialization of ethnolinguistic and national origin minority school children and youth. Not open to students on academic probation.
*Prereq: Junior standing or department permission.*

**FLA 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 as long as different topics are studied.
*Prereq: Department permission.*

**FLA 487 Cooperative Education.** 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 (FLA 387 and FLA 487) alternated with full-time attendance at the University. Credit/no credit.
*Prereq: FLA 387; admission to the program by application only.*

**FLA 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.*

**FLA 490 Internship.** 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.*
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLA 497/498/499</td>
<td>Independent Study.</td>
<td>1/2/3 hrs</td>
<td>Advanced study on an individual basis in areas not covered in formal course work.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>LAT 277/278/279</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.</td>
<td>Department permission.</td>
</tr>
</tbody>
</table>

**CLASSICAL LANGUAGES COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>GRK 121</td>
<td>Beginning Ancient Greek I.</td>
<td>5 hrs</td>
<td>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 Area I 3.c of the basic studies requirements.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>GRK 122</td>
<td>Beginning Ancient Greek II.</td>
<td>5 hrs</td>
<td>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 Area I 3.c of the basic studies requirements.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>GRK 177/178/179</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>GRK 477/478/479</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>LAT 121</td>
<td>Beginning Latin I.</td>
<td>5 hrs</td>
<td>A course to bring students to the level of facility necessary to read ancient authors with enjoyment and understanding. Satisfies Area I 3.c of the basic studies requirements.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>LAT 122</td>
<td>Beginning Latin II.</td>
<td>5 hrs</td>
<td>A course to bring students to the level of facility necessary to read ancient authors with enjoyment and understanding. Satisfies Area I 3.c of the basic studies requirements.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>LAT 177/178/179</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>LAT 277/278/279</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>LAT 377/378/379</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.</td>
<td>Department permission.</td>
</tr>
</tbody>
</table>

**COURSES IN ENGLISH FOR FOREIGN STUDENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 110</td>
<td>Beginning ESL Grammar.</td>
<td>3 hrs</td>
<td>The basic components of the simple sentence are taught. There is a special emphasis on basic verb tenses, question and negative forms.</td>
<td>Department permission or placement.</td>
</tr>
<tr>
<td>ESL 112</td>
<td>Beginning ESL Writing.</td>
<td>3 hrs</td>
<td>This course includes grammar manipulation of simple sentences while introducing paragraph organization and form.</td>
<td>Department permission or placement.</td>
</tr>
<tr>
<td>ESL 114</td>
<td>Beginning ESL Reading.</td>
<td>3 hrs</td>
<td>Basic vocabulary is developed while comprehension skills of recognizing main idea, supporting detail, exemplification, and narration of materials in simplified English are studied.</td>
<td>Department permission or placement.</td>
</tr>
<tr>
<td>ESL 116</td>
<td>Beginning ESL Speaking and Listening.</td>
<td>3 hrs</td>
<td>This course promotes and practices production and comprehension of conversational and survival levels of communication.</td>
<td>Department permission or placement.</td>
</tr>
<tr>
<td>ESL 118</td>
<td>Beginning ESL Laboratory.</td>
<td>1 hr</td>
<td>Individual and/or group lab sessions.</td>
<td>Department permission or placement.</td>
</tr>
<tr>
<td>ESL 177/178/179</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>ESL 200</td>
<td>Intermediate ESL Grammar.</td>
<td>3 hrs</td>
<td>Basic sentence components emphasizing verb tenses and usage. Some work on complex sentence structures.</td>
<td>Department permission or placement.</td>
</tr>
<tr>
<td>ESL 212</td>
<td>Intermediate ESL Writing.</td>
<td>3 hrs</td>
<td>Expanding paragraph constructions while developing unity, cohesion, and transition.</td>
<td>Department permission or placement.</td>
</tr>
<tr>
<td>ESL 214</td>
<td>Intermediate ESL Reading.</td>
<td>3 hrs</td>
<td>Continued development of techniques to build vocabulary and reading skills. Materials emphasize informational reading.</td>
<td>Department permission or placement.</td>
</tr>
<tr>
<td>ESL 216</td>
<td>Intermediate ESL Speaking and Listening.</td>
<td>3 hrs</td>
<td>Continued development of conversational skills, both speaking and listening. Delivery of short speeches and the development of listening for details.</td>
<td>Department permission or placement.</td>
</tr>
<tr>
<td>ESL 218</td>
<td>Intermediate ESL Laboratory.</td>
<td>2 hrs</td>
<td>Individual and/or group lab sessions.</td>
<td>Department permission or placement.</td>
</tr>
<tr>
<td>ESL 277/278/279</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.</td>
<td>Department permission.</td>
</tr>
</tbody>
</table>
ESL 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: ESL 210, department permission, or placement.

ESL 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: ESL 212, department permission, or placement.

ESL 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: ESL 214, department permission, or placement.

ESL 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 non-personal topics.
Prereq: ESL 216, department permission, or placement.

ESL 318 Advanced ESL Laboratory. 1 hr
Individual and/or group lab sessions.
Prereq: Department permission or placement.

ESL 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.

ESL 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. 1. of the basic studies requirements, a course in written composition.
Prereq: ESL 312, department permission, or placement.

ESL 414 Academic ESL Reading. 3 hrs
Reading in specialized fields at professional levels. Practice in outlining, summarizing, and synthesizing ideas from different sources.
Prereq: ESL 314, department permission, or placement.

ESL 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: ESL 316, department permission, or placement.

ESL 420 Review of English as a Second Language. 3 hrs
For non-native English speakers who need an additional semester of intensive English training before entering a regular full-time program of study. Includes practice in reading, writing, note-taking, listening, and speaking. May be repeated for credit.
Prereq: Department permission.

ESL 456 English for Special Purposes: Science and Technology. 3 hrs
Development of English speaking, listening, reading, and writing skills for international students who plan to major in scientific and/ or technical fields. Students will read and summarize articles in their fields, practice reporting technical information, formally and informally, listen and take notes on technical lectures, and develop skills needed in reading technical books.
Prereq: ESL 310, 312, 314, 316, or department permission.

ESL 477/478/479 Special Topics. 1/2/3 hrs
These courses deal with subject matter not provided in other departmental offerings. Students may elect each course several times as long as different topics are studied.
Prereq: Department permission.

CLASSICS COURSES

CLA 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.

CLA 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.

CLA 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.

CLA 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.

CLA 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.

CLA 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.

CLA 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.

CLA 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

LNG 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.
**GEOGRAPHY AND GEOLOGY**

**Andrew A. Nazzaro**  
Department Head  
203 Strong Hall  
487-0218


**Associate Professors:** Theodore Ligibel  
**Assistant Professors:** Allen Cichanski, Michael Kasenow, Steven LoDuca, Robert Sutton, Norman Tyler

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, 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 the College of Education.

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 (PACE), and the Travel and Tourism Student Association.

**Degrees:**  
Bachelor of Science and Bachelor of Arts

**Programs of Study**

**Majors:**
- Earth science
- Earth science for elementary education
- Earth science for secondary education
- Geography
- Geography for elementary education
- Geography for secondary education
- Geology
- Geology for elementary education
- Geology for secondary education
- Travel and tourism
- Urban and regional planning

**Minors:**
- Cartography and remote sensing
- Coastal environments
- Earth science
- Earth science for elementary education
- Earth science for secondary, K-12, and special education-secondary
- Environmental Analysis
- Geography
- Geography for elementary education
- Geography for secondary, K-12, and special education-secondary
- Geology
- Geology for elementary education
- Historic preservation

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**TESOL COURSES**

**TSL 410 TESOL Methods.**  
3 hrs  
Various methods and techniques used to teach language components (grammar, vocabulary, 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.*

**TSL 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: TSL 410 or concurrent enrollment, or department permission.*

**TSL 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.*
Travel and tourism
Urban and regional planning

Advising coordinators:
Coastal environments: C. Nicholas Raphael
Earth science: Michael Kasenow, Horace MacMahan, Carl Ojala
Geography: James R. McDonald
Geology: Allen Cichanski, Steven LoDuca
Historic preservation: Ted Ligibel, Marshall McLennan
Urban and regional planning: Norman Tyler
Travel & tourism: Gabriel Cherem, Robert Mancell
Cartography & 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 MA and MS degrees and certification are described in the Graduate Catalog.

ACADEMIC MAJORS

EARTH SCIENCE MAJOR

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 which shape the surface; plate tectonics and associated volcanism and earthquakes; and the impact of the planet’s oceans.

Sem hours
Major in earth science ................................................................. 32
1. Required courses .......................................................... 27-30
   AST 205 Principles of Astronomy .......................................... 4
   GES 108 Earth Science ......................................................... 4
   GES 114 National Parks and Monuments ......................... 2
   GEO 200 The Oceans ............................................................ 3
   GEO 309 Plate Tectonics ....................................................... 3
   GEO 324 Weather ............................................................... 3
   GLG 120 The Fossil Record or GLG 161 Historical
   Geology ............................................................................. 3-4
   GLG 228 Mineralogy or GLG 229 Rocks of Michigan ... 2-3
   GLG 325 Geomorphology or GLG 331 Paleontology ... 3-4
2. Restricted electives ........................................................... 2-5
   Choose two to five hours from the following:
   AST 204 Astronomical Investigations, GES 208 Natural
   Environmental Hazards, GES 227 Topographic Maps,
   GES 250 Introduction to Coastal Processes, GES 325
   Severe and Unusual Weather, GES 327 Soil Science,
   GES 424 Climatology
   GLG 160 Physical Geology, GLG 228 or GLG 229 (the one
   not taken above), GLG 325 or GLG 331 (the one not
   taken above), GLG 370 Glacial Geology

GEOGRAHY MAJOR

The geography major includes the study of physical landscapes, their origins and the processes that alter them; the imprint of human activity on the earth’s surface; the complex relationships among places; and the application of technology to human resource identification, conservation, and management.

Sem hours
Major in geography ................................................................. 30
1. Required courses .......................................................... 27-28
   GES 108 Earth Science ......................................................... 4
   GEO 110 World Regions ......................................................... 3
   GEO 235 Economic Geography ......................................... 3
   Technique courses ............................................................... 6
   Choose two courses from the following:
   GEO 300 Location and Site Analysis, GES 401 Cartogra-
   phy, GES 303 Field Geography, GES 305 Aerial Photo-
   tography, GES 470 Quantitative Methods
   in Geography and Geology

Physical courses ....................................................................... 2-3
Choose one course from the following:
   GEO 200 The Oceans, GES 324 Weather, GLG 325 Geo-
   morphology, GES 327 Soil Science, GLG 448
   Hydrogeology

Systematic courses .................................................................. 6
Choose two courses from the following:
   GEO 310 Energy Awareness, GEO 332 Urban Geography,
   GEO 360 Cultural Geography, GEO 361 Geography of
   Population, GEO 431 Historical Geography of the
   United States, GEO 438 Industrial Location and Devel-

Regional courses ......................................................................... 3
Choose one course from the following:
   GEO 314 Geography of Russia and Neighboring States,
   GEO 318 Geography of Asia, GEO 319 Geography of Energy,
   GEO 320 Geography of the United States and Canada,
   GEO 321 Geography of Latin America, GEO 322 Geo-
   graphy of Africa, GEO 323 Geography of Australia and
   Pacific Islands, GEO 328 Geography of Canada

2. Restricted electives ........................................................... 2-3
   Choose elective credits in consultation with advising coor-

GELOGY MAJOR

Geology majors who intend to enter the geological profession or enroll in graduate school also should take general chemistry and mathematics through calculus.

Sem hours
Major in geology ................................................................. 30
1. Required courses .......................................................... 26-29
   GLG 160 Physical Geology ................................................... 4
   GLG 161 Historical Geology ................................................... 4
   GLG 228 Mineralogy ............................................................. 3
   GLG 326 Structural Geology .................................................. 3
   GLG 329 Petrology ............................................................... 3
   GLG 330 Sedimentation and Stratigraphy ......................... 4
   *Field Geology ................................................................... 5-8
2. Electives ............................................................................. 1-4
   *Students on a Bachelor of Arts curriculum may substitute
   GLG 331 Paleontology and three semester hours of
   electives for field geology, with the total required for

TRAVEL AND TOURISM MAJOR

The travel and tourism major is a response 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.
Major in travel and tourism ............................................. 75-76

1. Required courses ..................................................... 42
   GEO 110 World Regions ............................................. 3
   GEO 112 Introduction to Travel and Tourism .................... 3
   GEO 212 Geography of Travel and Tourism ....................... 3
   GEO 312 Travel Business Applications ............................ 3
   GEO 320 Geography of the United States and Canada ........... 3
   GEO 441 Transportation Geography and Planning ............... 3
   GEO 445 Cultural Tourism Resources ................................ 3
   ACC 240 Principles of Accounting I ............................. 3
   MGT 386 Organizational Behavior and Theory .................... 3
   MKT 202 Business Communications .................................. 3
   MKT 261 Contemporary Selling ...................................... 3
   MKT 360 Principles of Marketing .................................... 3
   MKT 365 Buyer Behavior ............................................. 3
   MKT 369 Advertising .................................................. 3

2. Elective courses ..................................................... 15-16
   Choose 15-16 credits from the following (not more than three courses may be chosen from the College of Business):
   ANT 135 Introduction to Cultural Anthropology, ANT 233 Peoples and Cultures of Mexico, GEO 321 Geography of Latin America, ANT 236 Peoples and Cultures of Africa or GEO 322 Geography of Africa, ANT 248 Peoples and Cultures of the Pacific or GEO 323 Geography of Australia and Pacific Islands
   GEO 113 Foundations of Guest Service, GEO 115 Observing the Human Landscape, GEO 313 Geography of Michigan, GEO 315 Travel and Tourism: The European Scene, GEO 318 Geography of Asia, GEO 319 Geography of Europe, GEO 333 Settlement Geography, GEO 344 Recreation Geography, GEO 345 Geography of Resorts, GEO 360 Cultural Geography, GEO 387 and/or GEO 487 Cooperative Education, GEO 435 History of Urban Form and Function, GEO 436 Tourism and Socio-Economic Development, GEO 446 Heritage Interpretation and Tourism, GEO 478 Special Topics, GEO 488 Internship
   GES 114 National Parks and Monuments
   FA 429 History of American Architecture
   MGT 402 Business Report Writing
   LAW 293 Legal Environment of Business, LAW 393 Law of Business Enterprises
   MKT 368 Marketing Strategy, MKT 460 International Marketing, MKT 473 Marketing and Product Innovation, MKT 474 Promotional Strategy

3. Concentrations ...................................................... 18
   Choose either Option A: General or Option B: Foreign language and area studies

Option A: General
   Required
   JRN 215 News Writing and Reporting ................................ 3
   CTA 374 Intercultural Communication ............................... 3
   Choose two of the following:
   JRN 306 Feature Writing, JRN 312 Principles of Public Relations, ENG 424 Technical Writing
   Choose two of the following:
   CTA 224 Public Speaking, CTA 227 Interpersonal Communication, CTA 357 Interviewing as Communication

Option B: Foreign language and area studies
   Before choosing Option B, students must have completed FRN/GER/SPN 121, 122; 221, 222; and 233, 234 or equivalencies approved by the Foreign Languages and Bilingual Studies Department.
   GEO/HHS 316 History and Geography of Modern Europe or GEO/HHS 317 History and Geography of Spanish America .................................. 6

FRN/GER/SPN 343 and 344 Composition and Conversation .................. 6
FRN/GER/SPN 341 and 342 Survey of Literature or
FRN/GER/SPN 361 Language for International Trade and FRN/GER/SPN 446 Business French, Spanish, and German .......................... 6

URBAN AND REGIONAL PLANNING MAJOR

This interdisciplinary major studies the current situation in urban and regional planning, including land use, zoning, problems of urban growth, and local decision-making. The program is designed to prepare students for positions in public planning agencies, private planning firms, or 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.

Incorporated in the major are courses from several other departments, particularly in the areas of biological science, public policy and government, and real estate management. Courses recommended to fulfill basic studies requirements include BIO 105 Biology and the Human Species, MTH 105 College Algebra, SOC 105 Introduction to Sociology, GEO 108 Earth Science, ECO 201-202 Principles of Economics I-II, PLS 202 State and Local Government, and ENG 225 Intermediate English Composition.

Sem hours

Major in urban and regional planning .................................. 36

1. Required courses ..................................................... 25
   RES 210 Real Estate Principles and Practices ..................... 3
   GEO 215 Introduction to Urban and Regional Planning .......... 3
   GEO 306 Comprehensive Planning and Zoning .................... 3
   GES 401 Cartography .................................................. 3
   GEO 410 Site Planning Studio ........................................ 4
   GEO 435 History of Urban Form and Function .................... 3
   GES 476 Introduction to Geographic Information Systems ........ 3
   GES 495 Environmental Assessment and Planning .............. 3

2. Restricted electives .................................................. 11
   Choose 11 credits from the following in consultation with the advising coordinator:
   DS 265 Business Statistics I
   PLS 270 Public Administration
   GEO 300 Location and Site Analysis, GEO 332 Urban Geography, GEO 407 Housing and Residential Development, GEO 441 Transportation Geography and Planning
   GES 303 Field Geography, GES 305 Aerial Photogram Interpretation, GES 475 Computer Mapping, GES 479 Special Topics: Planning Law, GES 387/487 Cooperative Education, GES 488/490/490 Internship
   GHP 335 Historic Preservation

ACADEMIC MINORS

CARTOGRAPHY AND REMOTE SENSING MINOR

Cartography (map-making) is an ancient science which attempted 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 a track for undergraduates that leads directly to entry level positions as cartographers and remote sensing technicians. An objective of the minor is to provide balanced training between traditional cartographic work and computer maps. Emphasis is placed 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.

Minor in cartography and remote sensing ................................. 20

1. Required courses .................................................. 15
   GES 305 Aerial Photograph Interpretation ................... 3
   GES 401 Cartography ........................................... 3
   GES 402 Advanced Cartography ............................. 3
   GES 475 Computer Mapping .................................. 3
   GES 485 Introduction to Remote Sensing .................. 3

2. Restricted electives ................................................ 5
   Choose five credits from the following:
   GES 227 Topographic Maps, GLG 255 Field Geology I,
   GES 387/487 Cooperative Education, GES 488/489/490 Internship
   MTH 105 College Algebra, MTH 107 Plane Trigonometry
   FA 165 Graphic Design for Non-Majors
   IDT 121 Graphic Communication
   IT 206 Surveying, IT 231 Industrial Computer Graphics
   IS 215 End-User Computing or CSC 137 Introduction to
   FORTRAN Programming, IS 417 Systems Analysis
   and Design

COASTAL ENVIRONMENTS MINOR ........................................... 22

Minor in coastal environments .......................................... 22

1. Required courses .................................................. 16
   GES 108 Earth Science or GLG 160 Physical Geology .... 4
   GES 200 The Oceans ............................................ 3
   GES 250 Introduction to Coastal Processes ............... 3
   GES 350 Biogeography ........................................ 3
   GES 450 Lake and Coastal Management ..................... 3

2. Restricted electives ................................................ 6
   Choose six credits from the following:
   GEO 215 Introduction to Urban and Regional Planning,
   GES 208 Natural Environmental Hazards, GES 305
   Aerial Photograph Interpretation, GLG 325 Geomorphology,
   GLG 330 Sedimentation and Stratigraphy,
   GES 495 Environmental Assessment and Planning
   (Students, in consultation with the advising coordinator,
   may choose other electives not listed above.)

EARTH SCIENCE MINOR .................................................... 21

Minor in earth science ................................................ 21

1. Required courses .................................................. 18
   GES 108 Earth Science ......................................... 4
   GES 200 The Oceans ........................................... 3
   GES 309 Plate Tectonics ..................................... 3
   GES 324 Weather ............................................... 3
   GLG 229 Rocks of Michigan .................................. 2
   AST 203 Exploration of the Universe ....................... 3

2. Restricted electives ................................................ 3
   Choose one course from the following:
   GLG 161 Historical Geology, GLG 228 Mineralogy, GLG
   325 Geomorphology, GLG 331 Paleontology, GLG
   370 Glacial Geology
   (Students, in consultation with the advising coordinator,
   may choose other electives not listed above.)

ENVIRONMENTAL ANALYSIS MINOR ..................................... Sem hours

Minor in environmental analysis ........................................ 24

1. Required courses .................................................. 24
   GEO 215 Introduction to Urban and Regional Planning .... 3
   GES 250 Introduction to Coastal Processes or GES 485
   Introduction to Remote Sensing ....................... 3
   GES 305 Aerial Photograph Interpretation ............. 3
   GES 470 Quantitative Methods in Geography and
   Geology ..................................................... 3
   GES 475 Computer Mapping ................................ 3
   GES 495 Environmental Assessment and Planning .... 3
   GLG 459 Groundwater Modeling ........................ 3
   GLG 460 Contaminant Hydrology ......................... 3

2. Recommended supporting courses
   CHM 121, 122 General Chemistry I with lab
   IT 206 Surveying
   PHY 221 Mechanics, Sound, and Heat and PHY 222 Elec­
   tricity and Light
   GES 227 Topographic Maps
   MTH 270 Elementary Statistics
   GES 324 Weather
   GES 327 Soil Science
   GLG 370 Glacial Geology
   GES 424 Climatology
   ENG 424 Technical Writing
   BIO 433 Stream Ecology
   BIO 435 Wetland Ecosystems
   BOT 450 Aquatic Tracheophyta

   Students considering graduate study should elect the
   following:
   CHM 123, 124 General Chemistry II with lab
   PHY 221 Mechanics, Sound, and Heat and PHY 222 Elec­
   tricity and Light
   MTH 120-121 Calculus I-II

GEOGRAHY MINOR ....................................................... Sem hours

Minor in geography .................................................. 20

1. Required courses .................................................. 12
   GES 108 Earth Science ......................................... 4
   GEO 110 World Regions ...................................... 4

2. Restricted electives ................................................ 12
   Choose 10 credits in consultation with the advising coor­
   dinator.

GEOLoGY MINOR ........................................................... Sem hours

Minor in geology .................................................. 21

1. Required courses .................................................. 17
   GLG 160 Physical Geology .................................. 4
   GLG 161 Historical Geology ................................ 4
   GLG 228 Mineralogy ........................................... 3
   GLG 326 Structural Geology ................................ 3
   GLG 329 Petrology ............................................ 3

2. Restricted electives ................................................ 4
   Choose four credits in consultation with an advising coor­
   dinator.

HISTORIC PRESERVATION MINOR ....................................... Sem hours

Minor in historic preservation ....................................... 24-26

1. Required courses .................................................. 20
   GEO 115 Observing the Human Landscape ............... 2
   GEO 332 Urban Geography ................................... 3
GEO 333 Settlement Geography ........................................ 3
GHP 335 Historic Preservation ....................................... 3
*HIS 123 The United States to 1877 ................................ 3
*HIS 124 The United States, 1877 to the Present ............... 3
FA 429 History of American Architecture ................... 3
*American history majors will substitute electives for HIS 123, HIS 124

2. Restricted electives ........................................... 4-6
Choose two courses from the following:
ANT 135 Introduction to Cultural Anthropology, ANT 150
Introductory Archaeology
ECO 338 Land Economics
GEO 215 Introduction to Urban and Regional Planning,
GEO 235 Economic Geography, GEO 300 Location and Site Analysis,
GEO 313 Geography of Michigan, GEO 344 Recreation Geography,
GEO 345 Geography of Resorts, GEO 360 Cultural Geography,
GEO 423 Principles of City and Regional Planning, GES 401 Cartography
IDE 311 History of Interiors: Ancient-1800, IDE 321 History of Interiors Laboratory: 1800-Present
HIS 305 Indians of the United States, HIS 313 Michigan History,
HIS 362 United States Urban History
IE 105 History of Industrial Technology
IT 201 Construction Systems, IT 228 Construction Drawing
PSY 350 Environmental Psychology
RES 210 Real Estate Principles and Practices, RES 310
Real Estate Finance
SOC 306 The Urban Community
(Students, in consultation with the advising coordinator,
may choose other electives not listed above.)

TRAVEL AND TOURISM MINOR

Sem hours
Minor In travel and tourism ........................................ 20-21
1. Required courses ............................................ 18
GEO 110 World Regions ........................................... 3
GEO 112 Introduction to Travel and Tourism .................. 3
GEO 113 Foundations of Guest Service ........................ 3
GEO 212 Geography of Travel and Tourism .................... 3
GEO 312 Travel Business Applications ........................ 3
GEO 445 Cultural Tourism Resources ........................... 3
2. One course from the following: ................................ 2-3
GEO 315 Travel and Tourism: The European Scene, GEO
345 Geography of Resorts, GEO 436 Tourism and
Socio-Economic Development, GEO 446 Heritage Inter-
pretation and Tourism

URBAN AND REGIONAL PLANNING MINOR

Sem hours
Minor In urban and regional planning ......................... 20
1. Required courses ............................................ 13
GEO 215 Introduction to Urban and Regional Planning .... 3
GEO 306 Comprehensive Planning and Zoning ............. 3
GEO 410 Site Planning Studio .................................. 4
GEO 435 History of Urban Form and Function .............. 3
2. Restricted electives ........................................ 7
Choose at least 7 credits from the following in consultation
with the advising coordinator:
RES 210 Real Estate Principles and Practices
DS 265 Business Statistics I
PLS 270 Public Administration
GEO 300 Location and Site Analysis, GEO 332 Urban
Geography, GEO 407 Housing and Residential
Development, GEO 441 Transportation Geography and
Planning

GEO 303 Field Geography, GES 305 Aerial Photograph
Interpretation, GES 401 Cartography, GES 475
Computer Mapping, GES 476 Introduction to
Geographic Information Systems, GES 479 Special
Topics: Planning Law, GES 387/487 Cooperative
Education, GES 488/489/490 Internship, GES 495
Environmental Assessment and Planning
GHP 335 Historic Preservation

TEACHING MAJORS

EARTH SCIENCE MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context
of other program requirements, qualifies the student for recommenda-
tion 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. The student following this pro-
gram is also qualified for recommendation for endorsement in
science, certification code “DX.” The certification test covering this field is #16, “Science.”

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. CHM 121-122 General Chemistry I with lab (4)*
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. PHY 221 Mechanics, Sound, and Heat (4)*
II-B-4. Basic Studies requirement. See inside back cover

Credit hours in Basic Studies: ..................................... 50

Teaching Major/Minor

See note “a” above for courses applicable to both Basic Stud-
ies and the major/minor.

AST 205 Principles of Astronomy (4)
BIO 105 Biology and the Human Species (4)
GES 108 Earth Science (4)
GES 114 National Parks and Monuments (2)
GES 200 The Oceans (3)
GES 309 Plate Tectonics (3)
GES 324 Weather (3)
MTH 105 College Algebra (3)
MTH 107 Plane Trigonometry (2)
One of:
GLG 228 Mineralogy (3)
GLG 229 Rocks of Michigan (2)

One of:
GLG 120 The Fossil Record (3)
GLG 161 Historical Geology (4)

One of:
GLG 325 Geomorphology (3)
GLG 331 Paleontology (4)

Seven hours of approved electives in biology, chemistry,
mathematics, or physics
Enough additional hours from the following group to complete 48 hours in teaching-major requirements.
AST 204 Astronomical Investigations (1)
GES 208 Natural Environmental Hazards (3)
GES 227 Topographic Maps (2)
GES 250 Introduction to Coastal Processes (3)
GES 325 Severe and Unusual Weather (3)
GES 327 Soil Science (3)
GES 424 Climatology (3)
GLG 160 Physical Geology (4)
GLG 228 or GLG 229 (the one not taken above) (2-3)
GLG 331 or GLG 325 (the one not taken above) (3-4)
GLG 370 Glacial Geology (3)

Subtotal, Major/Minor and related areas: ........................ .48

Professional Studies
100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program: CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
GES 347 Teaching Earth Science and Physical Geography (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: .............................................34

Total credit hours required: .................................................... 132

*Course required for and applicable to major.

EARTH SCIENCE MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in geology/earth science, certification code “DH.” The certification test covering this field is #20, “Geology/Earth Science.” The student is also qualified for recommendation for endorsement in science, certification code “DX.” The certification test covering this field is #16, “Science.”

The curriculum for this major is that which is listed under “Teaching Major/Minor” in the secondary earth science program, plus the requirements under II-B-1 and II-B-3 in that program’s Basic Studies requirements. The program includes a structured general science minor.

36 hours, not including course work that may be satisfied through Basic Studies.

GEOGRAPHY MAJOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in geography, certification code “CB” and, depending on the minor selected, endorsement in economics (“CA”), history (“CC”), political science (“CD”), psychology (“CE”), sociology (“CF”), or social science (“CX”). The certification test covering this field is #08, “Geography.”
The following courses require formal admission to the
teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
HIS 481 The Teaching of Social Studies (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ................................. 34

Total credit hours required, with 20-hour minor: .............. 128
course required for and applicable to major.
Could be less, depending on the minor and the possible application of
Basic Studies courses to the minor.

GEOPHYSICS MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other
program requirements, qualifies the student for recommendation
for endorsement in geography, certification code "CB." The certifi-
cation test covering this field is #08, "Geography."
The curriculum for this major is that which is listed under
"Teaching Major" in the secondary geography program, plus the
requirements under II-B-3, II-B-2, III-B-3, and III-B-4 in that
program's Basic Studies requirements. Approved minors are history,
political science, sociology, and social science group for
elementary teachers.
29 hours, not including the minor and not including
course work that may be satisfied through Basic Studies.

GEOLOGY MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other
program requirements, qualifies the student for recommendation
for endorsement in geology/earth science, certification code "DH." The certifica-
tion test covering this field is #20, "Geology/Earth
Science."
GLG 160 Physical Geology (4)
GLG 161 Historical Geology (4)
GLG 228 Mineralogy (3)
GLG 326 Structural Geology (3)
GLG 329 Petrology (3)
GLG 330 Sedimentation and Stratigraphy (4)
5-8 hours from field geology
Additional electives in geology to total 30 hours

Approved minors are those for the elementary program as
given on page 230.
30 hours, not including the minor and not including course
work that may be satisfied through Basic Studies.

TEACHING MINORS

EARTH SCIENCE MINOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-
ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other
program requirements, qualifies the student for recommendation
for endorsement in geology/earth science, certification code "DH." The certifica-
tion test covering this field is #20, "Geology/Earth
Science."
*GES 108 Earth Science (4)
GES 200 The Oceans (3)
GES 309 Plate Tectonics (3)
GES 324 Weather (3)
GLG 229 Rocks of Michigan (2)
#AST 203 Exploration of the Universe (3)
One of:
GLG 161 Historical Geology (4)
(Prereq: GLG 160 or permission)
GLG 228 Mineralogy (3)
(Prereq: CHM 121)
GLG 325 Geomorphology (3)
GLG 331 Paleontology (4)
(Prereq: GLG 161 or BIO 105 or permission)
GLG 370 Glacial Geology (3)
(Prereq: GLG 161, 330 or permission)

Others, chosen in consultation with advising coordinator
21 hours (including hours satisfied in Basic Studies)

* Could be satisfied in Basic Studies in special education programs.
# Could be satisfied in Basic Studies in some programs.

GEOGRAPHY MAJOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-
ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other
program requirements, qualifies the student for recommendation
for endorsement in geography, certification code "CB." The certifi-
cation test covering this field is #08, "Geography."
*##GES 108 Earth Science (4)
*###GEO 110 World Regions (3)
13 hours chosen in consultation with the advising coordinator
to include five hours from:
GEO 313 Geography of Michigan (2)
GEO 314 Geography of Russia and Neighboring States (3)
GEO 318 Geography of Asia (3)
GEO 319 Geography of Europe (3)
GEO 320 Geography of the United States and Canada (3)
GEO 321 Geography of Latin America (3)
GEO 322 Geography of Africa (3)
GEO 328 Geography of Canada (2)
21 hours (including hours satisfied in Basic Studies)

* Included in Basic Studies for some programs.
** Included in Basic Studies for elementary program.
* May be included in Basic Studies in special education programs.

GEOLOGY MINOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-
ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other
program requirements, qualifies the student for recommendation
for endorsement in geology/earth science, certification code "DH." The certifica-
tion test covering this field is #20, "Geology/Earth
Science."
GLG 160 Physical Geology (4)
GLG 161 Historical Geology (4)
GLG 228 Mineralogy (3)
GLG 326 Structural Geology (3)
GLG 329 Petrology (3)
Four credits chosen in consultation with advising coordinator.
21 hours
GEOPHYSICS AND GEOL OGY COURSES

GES 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 geology. Not open to students who have credit in GES 202 Science for Elementary Teachers. Lecture: three hours per week. Laboratory: one-two hour period per week.

GES 114 National Parks and Monuments. 2 hrs
An analysis of the geology, vegetation, and wildlife that lead 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.

GES 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.

GES 200 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: GES 108 or GLG 160 or GES 202 or department permission.

GES 202 Science for Elementary Teachers. 3 hrs
Lectures and laboratory deal with earth science concepts and teaching methodology. Nationally used elementary science curriculums 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 GES 108. Lecture: two hours per week. Laboratory: one-two hour period per week.

GES 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.

GES 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: GES 108.

GES 250 Introduction to Coastal Processes. 3 hrs
Description and analysis of the physical and biogeographical processes of the coastal ocean and lagoon. Distribution and origin of the 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: GES 108 or BIO 105 or department permission.

GES 277/278/279 Special Topics. 1/2/3 hrs
An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied.
Prereq: Department permission.

GES 303 Field Geography. 3 hrs
Techniques in the observation 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.

GES 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: GES 108 and algebra/trigonometry, or department permission.

GES 309 Plate Tectonics. 3 hrs
An introduction to plate tectonics--i.e., continental drift and sea-floor 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: GES 108 or GLG 160 or GES 202 or department permission.

GES 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: GES 108 or department permission.

GES 325 Severe and Unusual Weather. 3 hrs
An analysis of cyclones, blizzards, thunderstorms, tornadoes, hurricanes, and other catastrophic weather phenomena. Includes their environmental impact and methods used in their prediction.
Prereq: GES 324.

GES 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: GES 108 or GLG 160 or department permission.

GES 334 Weather and Climate Investigations. 1 hr
A laboratory course for weather and climate students; includes the techniques utilized and concepts involved in the fields of weather and climate. Two hours of laboratory per week.
Prereq: GES 324 or GES 424; may be taken concurrently.

GES 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: GES 108 or equivalent and junior standing or department permission.

GES 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: GES 108 or BIO 224; GES 250 recommended.

GES 377/378/379 Special Topics. 1/2/3 hrs
An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied.
Prereq: Department permission.
GES 387 Cooperative Education. 3 hrs
Four to six months of full-time employment at a firm or agency chosen for imparting a practical educational experience in earth science or land use planning. The program consists of two work experiences (GES 387 and GES 487) alternated 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. Admission by application only.

GES 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.

GES 402 Advanced Cartography. 3 hrs
A continuation of GES 401. Emphasizes the student's production of thematic maps; the use of press-on materials, tapes and acetate overlays; drafting, computer mapping; reproduction techniques. One hour lecture and four hours laboratory per week.
Prereq: GES 401 or department permission.

GES 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: GES 324.

GES 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: GES 250 or GES 350 or department permission.

GES 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.

GES 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.

GES 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: GES 401 or GES 475 or department permission.

GES 477/478/479 Special Topics. 1/2/3 hrs
An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied.
Prereq: Department permission.

GES 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: GES 305 or department permission.

GES 487 Cooperative Education. 3 hrs
Four to six months of full-time employment at a firm or agency chosen for imparting a practical educational experience in earth science or land use planning. The program consists of two work experiences (GES 387 and GES 487) alternated 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. Admission by application only.

GES 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.

GES 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: GEO 215 or BIO 224.

GES 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.

GEOLGY COURSES

GLG 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 non-science major.

GLG 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.

GLG 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: GLG 160 or department permission.

GLG 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.

GLG 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
GLG 228 Mineralogy. 3 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: two hours weekly. Laboratory: two hours weekly.
Prereq: CHM 121.

GLG 229 Rocks of Michigan. 2 hrs
The identification and classification of rocks with special emphasis on characteristics used in the field.
Prereq: GES 108 or GLG 160.

GLG 255 Field Geology I. 2 hrs
Theory and practice of precision mapping using tape, alidade, plane table, and stadia rod in local area. With GLG 356 Field Geology II, satisfies the field requirement for major in geology. May include field study in a quarry.
Prereq: GES 108 or GLG 160 or department permission.

GLG 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.

GLG 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: GES 108 or GLG 160 and GLG 161 or department permission.

GLG 326 Structural Geology. 3 hrs
Introduction to the terminology, relationship, and deformation of rocks with examples from specific areas. Laboratory problems are directed toward understanding of geological structures in three dimensions and their representation, interpretation, projection, and illustration as applied to economic problems. Lecture: two hours weekly. Laboratory: two hours weekly.
Prereq: GES 108 or GLG 160.

GLG 329 Petrology. 3 hrs
The origin, occurrence, association, chemical relationships, and distribution of igneous, sedimentary, and metamorphic rocks; laboratory study of rocks. Not open to students with credit in GLG 229. Winter term only.
Prereq: GLG 228.

GLG 330 Sedimentation 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: GES 108 or GLG 160, GLG 228; competency in trigonometry or instructor permission.

GLG 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: GLG 161 or BIO 105 or department permission.

GLG 334 Geology of Construction. 3 hrs
Geologic features of near-surface soil and bedrock materials; how the materials and their chemical and physical properties are related to construction. Exploration and exploitation of the materials associated with ground water supply and disposal, aggregates and construction problems of dams, reservoirs, excavations, foundations, highways, and beach control structures.
Prereq: GES 108 or GLG 160 or department permission.

GLG 355 Geologic Field Methods. 1 hr
Construction principles and use of conventional instruments in geologic surveying, note taking, and preparation of illustrations and reports. Not open to students with credit in GLG 356.
Prereq: GLG 228, GLG 326, GLG 329 or department permission.

GLG 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 GLG 255, satisfies field requirement for geology major.
Prereq: GLG 226, GLG 326, GLG 329, and GLG 330 or department permission.

GLG 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: GES 108 or GLG 160, GLG 161, GLG 330 or department permission.

GLG 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.

GLG 387 Cooperative Education. 3 hrs
Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in geology. The program consists of two work experiences (GLG 387/487) alternated 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. Admission by application only.

GLG 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: GLG 228 and PHY 224.

GLG 430 Petroleum Geology. 3 hrs
A study of the origin, migration and accumulation of oil and natural gas. Exploration techniques in the use of structural geology, sedimentology, and stratigraphy. The various drilling coring methods, drilling equipment, and the procedures of drilling. Field trips to active drilling and/or producing areas and reports are required. Studies of specific oil and gas fields will be assigned.
Prereq: GLG 161, GLG 326, GLG 330 or department permission.

GLG 439 Economic Geology. 3 hrs
A study of the geochemical behavior of metallic elements; the origin, processes, controls, and classification of ore deposits; and fossil fuels. The occurrence and distribution of metallic and nonmetallic deposits.
Prereq: GLG 228.
GLG 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: GES 108 or GLG 160, algebraic ability, and junior standing.

GLG 459 Groundwater Modeling. 3 hrs
Study of groundwater flow and contaminant transport rates using analytical, numerical, and statistical models.
Prereq: GES 475 and GLG 448.

GLG 460 Contaminant Hydrology. 3 hrs
Study of hydrochemistry, pollution pathways, and transport of contaminants.
Prereq: BOT 221, CHM 121-122, and GLG 448.

GLG 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.

GLG 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.

GLG 487 Cooperative Education. 3 hrs
Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in geology. The program consists of two work experiences (GLG 387/487) alternated 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.

GLG 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.

GLG 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 COURSES IN SOCIAL SCIENCE

GEO 100 Future Worlds. 3 hrs
Introduces the student to reasons for studying the future from a geographical perspective, methods used in futuristic, the state of future shock today, the consequences of a shrinking world, and growing interdependence. Possible worlds that may exist in the year 2000 and beyond.

GEO 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.

GEO 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.

GEO 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: GEO 110.

GEO 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.

GEO 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.

GEO 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.

GEO 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: GEO 110 or GEO 112 or department permission. (May be taken concurrently.)

GEO 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 and ordinances, site analysis and planning, 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.

GEO 215 Economic Geography. 3 hrs
Systematic treatment of economic activities in selected world locations. Areal factors included in the evaluation, production, and distribution of goods and services.

GEO 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: GEO 110 or department permission.

GEO 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.
GEO 300 Location and Site Analysis. 3 hrs
Practical and theoretical application of models that explain the location of human activities on earth.
Prereq: GEO 235 recommended.

GEO 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: GEO 215.

GEO 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. GEO 110 or GES 108 recommended.

GEO 312 Travel Business Applications. 3 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: GEO 110 and GEO 112.

GEO 313 Geography of Michigan. 2 hrs
Detailed analysis of the natural setting, population and settlement characteristics, industry, recreation, and agriculture in the state.
Prereq: GEO 110 or GES 108.

GEO 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: GEO 110 or GES 108.

GEO 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 which form the foundation of this industry; and on the major economic, social, and environmental impacts which can be attributed to tourism.
Prereq: GEO 112 and GEO 212.

GEO 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 HIS 316.
Prereq: GEO 110 and one of HIS 101/102/103.

GEO 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 between nations are stressed as are the special relationships that exist between the nations and the United States. Must be taken concurrently with HIS 317.
Prereq: GEO 110 and one of HIS 101/102/103.

GEO 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: GEO 110 or GES 108.

GEO 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: GEO 110 or GES 108.

GEO 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: GEO 110 or GES 108.

GEO 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: GEO 110 or GES 108.

GEO 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: GEO 110 or GES 108.

GEO 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: GEO 110 or GES 108.

GEO 324 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 HIS 326.
Prereq: GEO 110 and either HIS 103 or HIS 106.

GEO 325 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: GEO 110 or GES 108.

GEO 326 Urban Geography. 3 hrs
A study of geographic principles related to distribution, function, and regional setting of urban centers.
Prereq: GEO 110.

GEO 327 Settlement Geography. 3 hrs
Cultural, functional, and ecological factors underlying human settlement patterns.
Prereq: GEO 110 or GES 108 or GEO 115.

GEO 340 Medical Geography. 3 hrs
An inquiry into ecosystemic relationships between human health and conditions of the environment, both natural and cultural. The application of geographic concepts and techniques to interregional and intercultural health and health care problems.
Prereq: GEO 110 or department permission.
GEO 343 Geography of Sport. 3 hrs
A study of the geographic dimensions of sport, emphasizing such topics as origin, diffusion, and distribution of American sports and athletes, sports regions, and regional recruiting patterns.

GEO 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: GEO 215 or GEO 211 or GEO 115 or GEO 360 or BIO 224.

GEO 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: GEO 110 and GEO 212 or department permission.

GEO 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.

GEO 360 Cultural Geography. 3 hrs
Human landscape patterns; emphasis upon the processes concerned with their origins, locations, and persistence. Prereq: GEO 110 or department permission.

GEO 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, resource depletion, and impacts of urbanization. Prereq: GEO 110 or department permission.

GEO 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.

GEO 387 Cooperative Education. 3 hrs
Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in geography. The program consists of two work experiences GEO 387/487) alternated 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. Admission by application only.

GEO 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: GEO 215.

GEO 410 Site Planning Studio. 3 hrs
A studio course in urban planning, giving 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: GEO 215 and GEO 306.

GEO 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: GEO 332 or department permission.

GEO 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: GEO 320 or department permission.

GEO 432 Political Geography. 3 hrs
A study of the theory and concepts of political geography, using contemporary examples. Size, location, resources, boundaries, population, and level of technology within and outside the political framework. Prereq: GEO 110 or department permission.

GEO 433 Political Geography of the United States. 3 hrs
A study of the variety of geographic forms of political behavior, organization, and structure in the United States. Prereq: GEO 110 or department permission.

GEO 434 The Geopolitical World. 3 hrs
Views of political space by world and regional states; strategies and capabilities for employing national power to carry out geopolitical goals. Prereq: GEO 110 or department permission.

GEO 435 History of Urban Form and Function. 3 hrs
Analysis of the history of urban planning in selected regions of the world and in North American cities. Discussions of the current urban situation, and various urban planning theories. Prereq: GEO 332 or department permission.

GEO 436 Tourism and Socio-Economic Development. 3 hrs
For students majoring in travel and tourism. Socio-economic impacts of tourism, national, and international development strategies. Prereq: GEO 110 and GEO 112.

GEO 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: GEO 300 or department permission.

GEO 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: GEO 235 or department permission.

GEO 441 Transportation Geography and Planning. 3 hrs
Historical evolution and worldwide distribution of major transportation systems. Technological and social implications will be considered, with particular attention to travel and tourism. Prereq: GEO 235 or department permission.
GEO 444 Census Applications to Spatial Analysis. 3 hrs
Utilization of census materials as data resources and tools with application to spatial analysis and social service problems. Designed to prepare students to intelligently assemble, organize, analyze, and utilize U.S. census data.

GEO 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: GEO 115 or 212 or GEO 360 or GHP 335.

GEO 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 audiovisuals. Prereq: GEO 445 or department permission.

GEO 477/478/479 Special Topics. 1/2/3 hrs
An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied. Prereq: Department permission.

GEO 487 Cooperative Education. 3 hrs
Four to six months of full-time employment at a firm or agency chosen for imparting a practical educational experience in geography. The program consists of two work experiences (GEO 387/487) alternated 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: GEO 387. Completion of junior year, geography major. Admittance by application only.

GEO 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.

GEO 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 COURSES IN HISTORIC PRESERVATION

GHP 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.

GHP 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: GEO 115 recommended.

GHP 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.

GHP 387 Cooperative Education. 3 hrs
Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in historic preservation, historic administration or heritage interpretation. The program consists of two work experiences (GHP 387/487) alternated 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.

GHP 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.

GHP 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.

GHP 438/439/440 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.

GHP 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.
**HISTORY AND PHILOSOPHY**

Margot I. Duley  
Department Head  
701 Pray-Harrold  
487-1018

**HISTORY SECTION**


Associate Professors: Robert M. Citino  
Assistant Professors: Ronald Delph, Roger D. Long, Philip Schmitz

**PHILOSOPHY SECTION**


Associate Professors: Margaret Crouch, Kate Mehuron, Michael Reed

Advising  
Advising is available in the History and Philosophy department for all areas of study listed above, with the exception of programs in elementary 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 (487-1018).

History, social science, area studies: Richard Goff  
History, social science, area studies, religion: Lester Scherer  
Philosophy: to be announced

**ACADEMIC MAJORS (HISTORY)**

**AREA STUDIES MAJORS**

The interdisciplinary area studies majors help students understand the background and specific problems of a world cultural or geo-political 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 who enter the program choose either a 30 semester hour major or a 20 semester hour minor in area studies.

Each of the above majors and minors list required and/or elective courses. Students also can utilize the individual directed (independent) study courses available through some departments for one, two, or three semester 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 that Latin American majors may instead elect a minor in Spanish culture, Spanish language, or Spanish literature.

**AFRICA**

<table>
<thead>
<tr>
<th>Area studies major: Africa</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required basic courses</td>
<td>9</td>
</tr>
<tr>
<td>ECO 201-202 Principles of Economics I-II</td>
<td>6</td>
</tr>
<tr>
<td>GEO 110 World Regions</td>
<td>3</td>
</tr>
<tr>
<td>2. Required area courses</td>
<td>15</td>
</tr>
<tr>
<td>ANT 236 Peoples and Cultures of Africa</td>
<td>3</td>
</tr>
<tr>
<td>ECO 385 Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>GEO 322 Geography of Africa</td>
<td>3</td>
</tr>
<tr>
<td>HIS 347 Sub-Saharan Africa to 1885</td>
<td>3</td>
</tr>
<tr>
<td>PLS 372 Government and Politics of Sub-Saharan Africa</td>
<td>3</td>
</tr>
<tr>
<td>3. Area electives</td>
<td>6</td>
</tr>
</tbody>
</table>

Choose six credits from the following:
- ANT 135 Introduction to Cultural Anthropology, ANT/SOC 336 Social and Cultural Change, ANT 339 Economic Anthropology
- ECO 370 Comparative Economic Systems
- FA 222 African and African American Art
- GEO 240 Geographic Perspectives on Third World Development
- GEO 518 Problems of Sub-Saharan Africa
- HIS 342 North Africa, 1798 to Present, HIS 348 Twentieth Century Africa

**ASIA-FAR EAST**

<table>
<thead>
<tr>
<th>Area studies major: Asia-Far East</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required basic courses</td>
<td>9</td>
</tr>
<tr>
<td>ECO 201-202 Principles of Economics I-II</td>
<td>6</td>
</tr>
</tbody>
</table>
2. Required area courses ........................................ 14
   ECO 385 Economic Development .......................... 3
   GEO 318 Geography of Asia ................................. 3
* HIS 444 The Far East to 1800 or
* HIS 442 Modern China ...................................... 3
   HIS 555 Studies in Far Eastern History .................. 2
   PLS 374 Asian Political Systems .......................... 3

3. Area electives ...................................................... 7
   Choose seven credits from the following:
   ANT 135 Introduction to Cultural Anthropology, ANT/SOC 336 Social and Cultural Change
   FA 421 History of Oriental Art
   GEO 240 Geographic Perspectives on Third World Development
   GEO/HIS 316 History and Geography of Modern Asia
   HIS 301 The Religions of South and East Asia, *HIS 441
   The Far East to 1800, or *HIS 442 Modern China
*One of these courses must be taken to fulfill area requirements. The other may be taken as an area elective.

LATIN AMERICA

Students electing the Latin American area studies major are
strongly urged to minor in Spanish language, literature, or culture.

Area studies major: Latin America .................................. 30

1. Required basic courses ........................................ 9
   ECO 201-202 Principles of Economics I-II .................. 6
   GEO 110 World Regions ......................................... 3

2. Required area courses ........................................ 15
   *ANT 233 Peoples and Cultures of Mexico .................. 3
   ECO 385 Economic Development .............................. 3
   GEO 321 Geography of Latin America ........................ 3
   *HIS 355 Latin America: Colonial Period, *HIS 356
   Latin America: National Period, or *HIS 457
   History of Mexico ............................................. 3
   PLS 367 Contemporary Political Systems of Latin
   America .................................................................. 3

3. Area electives ...................................................... 6
   Choose six credits from the following:
   ANT 135 Introduction to Cultural Anthropology, *ANT
   233 Peoples and Cultures of Mexico, ANT/SOC 335
   The Study of Non-Primitive Societies, ANT/SOC 336
   Social and Cultural Change
   ECO 370 Comparative Economic Systems
   GEO 240 Geographic Perspectives on Third World Development,
   GEO/HIS 316 History and Geography of Modern Europe
   HIS 341 Geography of Russia and Neighboring States .... 3
   HIS 344 Russia since 1855 ...................................... 3
   HIS 547 Nineteenth Century Ideological Background
   of the Russian Revolution ...................................... 3
   PLS 361 Soviet Succession Politics .......................... 3

3. Area electives ...................................................... 6
   Choose nine credits from the following:
   ECO 370 Comparative Economic Systems
   GEO/HIS 316 History and Geography of Modern Europe
   GEO 516 Problems in Soviet Geography
   HIS 332 Modern Europe 1815-1919, HIS 333 Europe since
   1919, HIS 343 Russia to 1855, HIS 550 Twentieth
   Century Russia
   PLS 462 Soviet Foreign Relations

MIDDLE EAST AND NORTH AFRICA

Area studies major: Middle East and North Africa .................. 30

1. Required basic courses ........................................ 9
   ECO 201-202 Principles of Economics I-II .................. 6
   GEO 110 World Regions ......................................... 3

2. Required area courses ........................................ 9
   ECO 385 Economic Development .............................. 3
   *HIS 341 The Middle East, 1798 to Present or *HIS
   342 North Africa, 1798 to Present .......................... 3
   PLS 371 Government and Politics of the Middle East .... 3

3. Area electives ...................................................... 12
   Choose 12 credits from the following:
   ANT 135 Introduction to Cultural Anthropology, ANT 236
   Peoples and Cultures of Africa, ANT/SOC 336 Social
   and Cultural Change
   ECO 385 Economic Growth and Development
   GEO 240 Geographic Perspectives on Third World Develop­
   ment, GEO 322 Geography of Africa
   HIS 302 Near Eastern and Western Religions, *HIS 341
   The Middle East, 1798 to Present, *HIS 342 North
   Africa, 1798 to Present, HIS 543 Nationalism and
   Modernization in the Middle East and North Africa
   LIT 351 World Mythology
*One of these courses must be taken to fulfill area requirements. The other may be taken as an area elective.

SOVIET UNION

Area studies major: Soviet Union .................................... 30

1. Required basic courses ........................................ 9
   ECO 201-202 Principles of Economics I-II .................. 6
   GEO 110 World Regions ......................................... 3

2. Required area courses ........................................ 12
   ECO 201-202 Principles of Economics I-II .................. 6
   GEO 110 World Regions ......................................... 3
   *HIS 355 Latin America: Colonial Period, *HIS 356
   Latin America: National Period, or *HIS 457
   History of Mexico ............................................. 3
   PLS 367 Contemporary Political Systems of Latin
   America .................................................................. 3

3. Area electives ...................................................... 6
   Choose nine credits from the following:
   ECO 370 Comparative Economic Systems
   GEO/HIS 316 History and Geography of Modern Europe
   GEO 516 Problems in Soviet Geography
   HIS 332 Modern Europe 1815-1919, HIS 333 Europe since
   1919, HIS 343 Russia to 1855, HIS 550 Twentieth
   Century Russia
   PLS 462 Soviet Foreign Relations

HISTORY MAJOR

History major .............................................................. 30

1. Required courses .................................................. 9
   HIS 101 Western Civilization to 1648, or HIS 102
   Western Civilization, 1648 to World War I; or
   HIS 103 Twentieth Century Civilization .................... 3
   HIS 123 The United States to 1877 or HIS 124 The
   United States, 1877 to the Present .......................... 3
   HIS 300 Historical Research and Writing .................... 3

2. Restricted electives ............................................... 15
   Choose six hours of courses 300-level or above in the
   following areas and three hours in the remaining
   area:
   A. United States and Canada
   B. Europe
   C. Africa, Asia, History of Religions, Latin America

3. Unrestricted electives .............................................. 6
   Note: Students majoring in history may count no more than
   four 100-level courses toward the major.
   HIS 100 The Comparative Study of Religion and HIS 481
   The Teaching of Social Studies may not be counted towards
   the major.
SOCIAL SCIENCE MAJOR

The social science major requires a total of 36 semester hours, including electives, chosen from history, anthropology, sociology, economics, geography, and political science. The major must include at least eight semester hours each in three of the areas listed below. Of the 36 semester hours, at least 14 must be in courses at the 300-level or above. Students minoring in any of the fields listed above may not choose any courses from that field for this major.

Areas of concentration (choose three)

1. World history .......................................................... 8-9
   a. Choose two of the following: ............................... 6
      HIS 101 Western Civilization to 1648; HIS 102 Western
      Civilization, 1648 to World War I; HIS 103
      Twentieth Century Civilization; HIS 106 Asian
      and African Civilizations
   b. One world history course at the 300-level or above..... 2-3
2. United States history ................................................. 8-9
   a. HIS 123 The United States to 1877 ....................... 3
   b. HIS 124 The United States, 1877 to the Present ....... 3
   c. One United States or Canadian history course at the
      300-level or above ........................................... 2-3
3. Anthropology ........................................................... 8-9
   a. ANT 135 Introduction to Cultural Anthropology ...... 3
   b. An anthropology course at the 300-level or above .... 3
   c. Any other anthropology course ......................... 2-3
4. Sociology ............................................................... 8-9
   a. SOC 105 Introduction to Sociology ..................... 3
   b. A sociology course at the 300-level or above ......... 3
   c. Any other sociology course ............................... 2-3
5. Economics ............................................................. 8-9
   a. ECO 201/202 Principles of Economics I-II ............ 6
   b. An economics course at the 300-level or above ...... 2-3
6. Geography .............................................................. 8-9
   a. GEO 110 World Regions ..................................... 3
   b. An area III geography course at the 300-level or
      above .......................................................... 3
   c. Any other area III geography course ................. 2-3
7. Political science ...................................................... 8-9
   a. Choose one of the following: ............................ 3
      PLS 112 American Government or PLS 113
      American Government Honors
   b. A political science course at the 300-level or above .. 3
   c. Any other political science course ..................... 2-3
Electives:
Choose courses from any of the above fields to complete the required 36 hours, except HIS 100 and HIS 481.

ACADEMIC MINORS (HISTORY)

AREA STUDIES MINOR

Area studies minor: Africa .............................................. 20
   1. Required area courses (as listed for the major) ........ 15
   2. Area electives (as listed for the major) ................. 5

Area studies minor: Asia-Far East .................................... 20
   1. Required area courses (as listed for the major) ....... 14
   2. Area electives (as listed for the major) ............... 6

HISTORY MINOR

Minor in history .......................................................... 20-21
   1. Required courses ............................................... 6
      HIS 101 Western Civilization to 1648; HIS 102 Western
      Civilization, 1648 to World War I; or HIS 103
      Twentieth Century Civilization
   2. Restricted electives ........................................... 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:
      A. United States and Canada
      B. Europe
      C. Africa, Asia, History of Religions, Latin America
   3. Electives .......................................................... 2-3
      Note: No more than three 100-level courses may be counted
      toward the minor.
      HIS 100 The Comparative Study of Religion and HIS 481
      The Teaching of Social Studies may not be counted toward
      the minor.

RELIGIOUS STUDIES MINOR

Minor in religious studies .............................................. 20-21
   1. Required course ............................................... 3
      HIS 100 The Comparative Study of Religion
   2. Restricted electives* ........................................ 12
      Choose four courses from the following:
      PHI 215 Philosophy of Religion
      ANT 338 Anthropology of Religion
      HIS 301 The Religions of South and East Asia, HIS 302
      Near Eastern and Western Religions, HIS 303 History
      of American Religion
      LIT 251 The Bible As Literature
      PSY 225 Psychology of Religion
      SOC 320 Sociology of Religion
   3. Electives* ....................................................... 5-6
      Choose two additional courses from the restricted electives
      list or from the following:
      PHI 220 Ethics, PHI 260 Existentialism
      ANT 135 Introduction to Cultural Anthropology
      CLA 301 Mythology
      FA 107 Art History Survey I, FA 340 History of Classical
      Art, FA 341 History of Renaissance Art
      HIS 327 Europe in the Making, 500-1300; HIS 330 Europe
      in the Renaissance and Reformation
      LIT 351 World Mythology, LIT 409 The Development of
      American Literature, LIT 414 English Renaissance
      Prose and Poetry 1500-1660
Teaching Majors

History Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification in accordance with 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 science ("CX"). The certification test covering this field is #09, "History." Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. HIS 102 Western Civilization I (3)*
III-B-3. One of:
   a. GEO 107 Introductory Geography (3)
   b. GEO 110 World Regions (3)
III-B-4. HIS 103 Twentieth Century Civilization (3)*
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical Education, military science, or equivalent (2)

A course in economics, if not included in the minor (3)

Credit hours in Basic Studies: .............................................. 52

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.

One of:

   a. HIS 123 The United States to 1877 (3)
   b. HIS 124 The United States, 1877 to the Present (3)
   c. HIS 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:

United States and Canada
Europe
Latin America, Africa, Asia, History of Religions

Electives in history; not more than one course at the 100-level; not including HIS 100 or HIS 481; electives should include at least five hours of U.S. history

Minor

A minor in economics, geography, political science, psychology, sociology, or social science.

Subtotal, Major and Minor: .............................................. 47

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)
The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
HIS 481 The Teaching of Social Studies (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ................................ 34

Total credit hours required, with 20-hour minor: .............. 133

*Course required for and applicable to major.
1Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.

TEACHING MAJOR

SPECIAL TEACHER CERTIFICATION

Successful completion of this major, 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.

The curriculum for this major is that which is listed under "Teaching Major" in the secondary history program, plus the III-B-2, III-B-3, and III-B-4 in that program's Basic Studies requirements. Approved minors are geography, political science, sociology, and social science group for elementary teachers.

30 hours, not including the minor and not including course work that may be satisfied through Basic Studies.

SOCIAL SCIENCE MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in social science, certification code "CX," and, depending on the minor selected, endorsement in economics ("CA"), geography ("CB"), history ("CC"), political science ("CD"), psychology ("CE"), or sociology ("CF"). The certification test covering this field is #06, "Social Studies.

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. HIS 102 Western Civilization, 1648 to World War I (3)*
III-B-3. HIS 124 The United States, 1877 to the Present (3)
III-B-4. HIS 123 The United States to 1877 (3)

One of:
GEO 107 Introduction to Geography (3)
GEO 110 World Regions (3)

II-B-5. HIS 103 Twentieth Century Civilization (3)*
III-B-4. HIS 124 The United States, 1877 to the Present (3)
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

A course in economics, if not included in the minor (3)

Credit hours in Basic Studies: ............................................ 52

Minor

A minor in one of economics, geography, psychology, or sociology

(Note: this group of minors is based on the assumption given above; history and political science are the only other acceptable minors under any circumstance)

Subtotal, Major and minor: ............................................ 83

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
HIS 481 The Teaching of Social Studies (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ................................ 34

Total credit hours required, with 20-hour minor: .............. 129

*Course required for and applicable to major.
1Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.
TEACHING MINORS

HISTORY MINOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in history, certification code "CC." The certification test covering this field is #09, "History."

One of:

* HIS 101 Western Civilization to 1648 (3)
* HIS 102 Western Civilization, 1648 to World War I (3)
* HIS 103 Twentieth Century Civilization (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, Latin America

Two hours of unrestricted elective(s)

No more than three 100-level courses may be counted toward the minor. HIS 100 and HIS 481 may not be counted. Secondary education certification requires at least eight hours of United States history.

20 hours (including hours satisfied in Basic Studies)

* May be satisfied in Basic Studies requirements.

SOCIAL SCIENCE GROUP MINOR (NOT AVAILABLE WITH THE SOCIAL SCIENCE MAJOR)
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in social science, certification code "CX." The certification test covering this field is #06, "Social Sciences."

Total of 24 hours from history, anthropology, sociology, economics, geography, and political science. Must include at least 8 semester hours in each of the areas listed below. The remaining 8 hours may be from any of the areas. Students majoring in any of the fields listed above may not choose any courses from that field for this minor.

North Central Association minimum semester hour standards for teaching a subject at the secondary level: at least eight hours for each of economics, political science, sociology, United States history, world history; at least five hours for each of geography and anthropology.

World History
Two of:
- HIS 101 Western Civilization to 1648 (3)
- HIS 102 Western Civilization, 1648 to World War I (3)
- HIS 103 Twentieth Century Civilization (3)
- HIS 106 Asian and African Civilizations (3)

United States History
HIS 123 The United States to 1877 (3)
HIS 124 The United States, 1877 to the Present (3)
One United States history course at the 300-level or above (2)

Anthropology
ANT 135 Introduction to Cultural Anthropology (3)

An anthropology course at the 300-level or above (3)
Any other anthropology course (2)

Sociology
SOC 105 Introductory Sociology (3)
A sociology course at the 300-level or above (3)
Any other sociology course (2)

Economics
ECO 201 Principles of Economics I (3)
ECO 202 Principles of Economics II (3)
An economics course at the 300-level or above (2)

Geography
GEO 110 World Regions (3)
A geography course at the 300-level or above (3)
Any other geography course (2)

Political Science
One of:
- PLS 112 American Government (3)
- PLS 113 American Government Honors (3)

- A political science course at the 300-level or above (3)
- Any other political science course (2)

24 hours (including hours satisfied in Basic Studies)

HISTORY COURSES

BASIC COURSES

HIS 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 basic studies philosophy/religion requirement. Does not satisfy basic studies history requirement. Does not count for social science major or minor, or history major or minor.)

HIS 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.

HIS 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.

HIS 103 Twentieth 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.

HIS 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.

HIS 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.
UNITED STATES AND CANADA

HIS/LIT 107 Society in Crisis: 1848 and 1968. 6 hrs
A comparison and contrast of the social crises that culminated in two revolutionary aftershocks (1848 in Europe and 1968 in the United States and Europe), focusing on alienation, women, the rise of nationalism and ethnic consciousness, and the revolutionary outlook and its ultimate frustration. Team taught by members of the History and English Departments. These courses must be taken concurrently and satisfy one history requirement and one literature requirement. Note: See Honors Humanities Courses, page 30.

HIS 123 The United States to 1877. 3 hrs
A study of United States history through the Reconstruction following the Civil War.

HIS 124 The United States, 1877 to the Present. 3 hrs
A study of United States history from the end of Reconstruction to the present.

HIS 152 From the Gay Nineties to the Crash. 3 hrs
A series of biographical portraits providing an intensive look at the profound cultural changes of the era 1890 to 1930, in both Europe and the United States. Team taught by members of the History and English Departments. This course satisfies one history or one literature requirement. Note: See Honors Humanities Courses, page 30.

HIS 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.

HIS 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.

HIS 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.

HIS 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.

HIS 325 The Family in History. 3 hrs
A history of the family in a selected geographical area (for example, the United States or Europe), exploring the interaction between the family and broader cultural and economic forces over time, and examining in historical perspective the various stages of life, such as childhood, adolescence, courtship, marriage, and old age.

HIS 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.

HIS 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.

HIS 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 HIS 123 or HIS 124.

HIS 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.

HIS 365 The Old South. 3 hrs
The South from the colonial foundations to the formation of the Confederacy in 1861. Prereq: HIS 123 and junior standing.

HIS 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: HIS 123 or equivalent.

HIS 383 The Age of Jackson. 3 hrs
A study of the United States from the end of the War of 1812 through the Mexican War, with the major emphasis on the transportation revolution, sectionalism, the second American party system, Manifest Destiny, and the social movements of the era.

HIS 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.

HIS 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.

HIS 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: HIS 124.

HIS 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: HIS 124.

HIS 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
Prereq: HIS 124.

HIS 461 Foreign Relations of the United States. 3 hrs
A survey of the foreign relations of the United States emphasizing the diplomacy of the period after the Civil War.

HIS 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.

HIS 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.

HIS 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: HIS 123 or HIS 124 or department permission.

HIS 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: HIS 123 and junior standing.

HIS 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.

HIS 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: HIS 123 or equivalent.

HIS 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: HIS 123 or HIS 124 or equivalent.

EUROPEAN HISTORY

HIS 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.

HIS 127 The Splendid Centuries of Austria. 3 hrs
A survey of the art, music, and literature of Austria from the 17th to early 20th century in its intellectual, political, and social setting. Baroque and Rococo art, and Classical and Romantic music and literature are considered. Extensive use is made of recordings and slides. Team taught by a member of one of the fine arts Departments and a member of the History Department. This course satisfies one fine arts or one history requirement. Note: See Honors Humanities Courses, page 30.

HIS 128 Russia In the Age of Tolstoy and Dostoevsky. 3 hrs
An introduction to the rise of the revolutionary movement in Russia in the half century preceding World War I due to developments in peasant, urban, and aristocratic life. Students examine selected works of literature and some art and music. Team taught by members of the English and History Departments. This course satisfies one literature or one history requirement. Note: See Honors Humanities Courses, page 30.

HIS 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.

HIS 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.

HIS 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.

HIS 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: HIS 102 or HIS 332.

HIS 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 GEO 316.
Prereq: GEO 110 and either HIS 101, HIS 102, or HIS 103.

HIS 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. Emphasizes political, social, and economic developments; also considers literary, intellectual, and artistic accomplishments.
Prereq: One course in history or department permission.

HIS 324 Roman History. 3 hrs
Examines the Romans' achievements from earliest times to the German conquest, focusing on the period 500 B.C.-A.D. 500. Emphasizes political, social, and economic developments; also considers literary, intellectual, and artistic accomplishments.
Prereq: One course in history or department permission.

HIS 327 Europe In the Making, 500-1300. 3 hrs
Examines the combination of classical, Christian, and barbarian elements to form a dynamic civilization in a previously underdeveloped area; explores the political, social, and economic developments and the literary, intellectual, and artistic accomplishments within that period.
Prereq: One course in history or department permission.
HIS 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.

HIS 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.

HIS 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.

HIS 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.

HIS 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 post-war Germany.
Prereq: Junior or department permission.

HIS 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.

HIS 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 or department permission.

HIS 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.

HIS 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 HIS 411.

HIS 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.

HIS 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.

HIS 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.

HIS 471 Social and Intellectual History of Nineteenth 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.

AFRICA, ASIA, HISTORY OF RELIGIONS, LATIN AMERICA

HIS 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: HIS 100 or HIS 106.

HIS 302 Near Eastern and Western Religions. 3 hrs
A survey of the historical evolution of these several religions originating in Western Asia, concentrating especially on the development and interaction of Judaism, Christianity, and Islam.
Prereq: HIS 100 or HIS 101.

HIS 317 History and Geography of Spanish America. 3 hrs
An interdisciplinary geographical-historical study of Spanish America, emphasizing political, cultural, and socio-economic 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 GEO 317.
Prereq: GEO 110 and either HIS 101, HIS 102, or HIS 103.

HIS 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 GEO 326.
Prereq: GEO 110 and either HIS 103 or HIS 106.

HIS 341 The Middle East, 1798 to 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.

HIS 342 North Africa, 1798 to 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.

HIS 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.

HIS 348 Twentieth Century Africa. 3 hrs
A detailed examination of black Africa's response to the historical experience of European colonialism, along with the evolution of these responses, forms, and patterns applicable not only to Africa, but also to the entire non-Western world.
HIS 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.

HIS 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.

HIS 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.

HIS 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.

HIS 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.

HIS 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, postwar changes. Political, economic and cultural developments are considered.
Prereq: Junior standing or department permission.

HIS 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.

COOPERATIVE EDUCATION

HIS 387/487 Cooperative Education. 3 hrs each
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 alternated with full-time attendance at the University.
Prereq: Junior standing, History or social science major. Admission to program by application only. Department approval.

INDEPENDENT STUDY

HIS 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 semester hours of independent study in history during any semester or session.
Prereq: Department permission.

SPECIAL TOPICS

HIS 177/178/179 Special Topics. 1/2/3 hrs
An exploration of historical subject matter not provided in other departmental offerings. Content will change from semester to semester; up to three different topics may be offered in any one semester. Students may not count more than six hours of special topics courses as credit toward the major or minor.
Prereq: One course in history or department permission.

HIS 277/278/279 Special Topics. 1/2/3 hrs
An exploration of historical subject matter not provided in other departmental offerings. Content will change from semester to semester; up to three different topics may be offered in any one semester. Students may not count more than six hours of special topics courses as credit toward the major or minor.
Prereq: One course in history or department permission.

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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: Junior standing or department permission.

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Prereq: Department permission.

SPECIAL TOPICS

HIS 177/178/179 Special Topics. 1/2/3 hrs
An exploration of historical subject matter not provided in other departmental offerings. Students may elect more than once provided different topics are studied.
Prereq: Department permission.
### ACADEMIC MINOR (PHILOSOPHY)

#### PHILOSOPHY MINOR

<table>
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<tr>
<th>Course</th>
<th>Sem Hours</th>
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<tbody>
<tr>
<td>Minor in Philosophy</td>
<td>21</td>
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<tr>
<td>1. Required Courses</td>
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</tr>
<tr>
<td>PHI 230 History of Philosophy: Ancient</td>
<td>6</td>
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<tr>
<td>PHI 231 History of Philosophy: Modern</td>
<td>3</td>
</tr>
<tr>
<td>2. Electives</td>
<td>15</td>
</tr>
<tr>
<td>Choose two courses at the 300 or 400 level</td>
<td>6</td>
</tr>
<tr>
<td>Choose 9 credits from other philosophy courses</td>
<td>9</td>
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<tr>
<td>Only one in each of the following pairs of courses counts toward the minor:</td>
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<tr>
<td>A. PHI 100 Introduction to Philosophy or PHI 110 Philosophies of Life</td>
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<tr>
<td>B. PHI 120 Introduction to Critical Reasoning or PHI 130 Introduction to Logic</td>
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#### PHILOSOPHY COURSES

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<tr>
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<tr>
<td>PHI 100 Introduction to Philosophy</td>
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<td>PHI 130 Introduction to Logic</td>
<td>3 hrs</td>
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<td>PHI 212 Philosophy of Art</td>
<td>3 hrs</td>
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<td>PHI 215 Philosophy of Religion</td>
<td>3 hrs</td>
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<tr>
<td>PHI 220 Ethics</td>
<td>3 hrs</td>
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</tbody>
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#### I. BASIC STUDIES COURSES

| PHI 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 business issues. | |
| PHI 222 Professional Ethics.                | 3 hrs     |
| An analysis of professionalism and the relationships between contemporary professional values and traditional ethical values. Students will investigate various ethical theories and analyze current ethical issues in various professions by means of controversial case studies. Issues will come from such areas as accounting, architecture, clinical psychology, computer technology, engineering, journalism, law, medicine, ministry, nursing, pharmacology, physical therapy, politics, public administration, real estate, social work, teaching, veterinary medicine, and more. | |
| PHI 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. | |
| PHI 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

| PHI 122 American Studies: Success and the Pursuit of Happiness in 19th Century America. | 3 hrs |
| An examination of the widespread 19th-century belief that worldly success produces happiness and an exploration of the proper relationship of knowledge and power, history and progress, wealth and happiness. Readings include such authors as Benjamin Franklin, H.D. Thoreau, William James, Mark Twain, and Horatio Alger. Team taught by faculty in English and Philosophy. This course satisfies one philosophy or one literature requirement. Note: See Honors Humanities Courses, page 30. | |
| PHI 124 The Age of Wagner.                  | 3 hrs     |
| An exploration of the personal, intellectual, and artistic influences on Wagner's life and work and a consideration of artists influenced by Wagner. Team taught by faculty in English and Philosophy. This course satisfies one philosophy or one literature requirement. Note: See Honors Humanities Courses, page 30. | |
| PHI 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 philosophy or one literature requirement. Note: See Honors Humanities Courses, page 30. | |
| PHI 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 faculty in Art and Philosophy. This course satisfies one art or one history requirement. Note: See Honors Humanities Courses, page 30. | |
| PHI 155 Narrative in Literature and Film.   | 3 hrs     |
| An introduction to cinematic concepts and terminology, focusing primarily on narrative techniques in literature and parallel devices in film. Readings include several prose forms and a text dealing | |
with the theory of film. Team taught by faculty in English and Philosophy. This course satisfies one literature or one philosophy requirement. Students may not earn credit in both this course and LIT 300. Note: See Honors Humanities Courses, page 30.

PHI 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.

PHI 230 History of Philosophy: Ancient. 3 hrs
A study of important philosophical developments in Western thought from the pre-Socratic through Aristotle. Covers the pre-Socratics, Socrates, Plato, and Aristotle.
Prereq: One course in philosophy other than PHI 120 or PHI 130.

PHI 231 History of Philosophy: Modern. 3 hrs
Prereq: One course in philosophy other than PHI 120 or PHI 130.

PHI 232 Nineteenth Century Philosophy. 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 PHI 120 or PHI 130. Recommended: PHI 230 or PHI 231.

PHI 240 American Philosophy. 3 hrs
An examination of the philosophical tradition in the United States through a study of such movements as idealism, transcendentalism, realism, and pragmatism; from Jonathan Edwards to the present day.
Prereq: One course in philosophy other than PHI 120 or PHI 130.

PHI 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 men 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 PHI 120 or PHI 130. Recommended: PHI 231.

PHI 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.

PHI 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.

PHI 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 limits of concepts used to talk about the arts.
Prereq: One course in philosophy other than PHI 120 or PHI 130.

PHI 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 knowing, 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 PHI 120 or PHI 130. Recommended: PHI 230 or PHI 231.

PHI 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 PHI 120 or PHI 130, or department permission.

PHI 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, the politics of narrative, and recent hermeneutical theory. Readings may include selections from Paul de Man, M. M. Bakhtin, Bell Hooks, Edward Said, or Barbara Johnson. May be repeated for credit with department permission.
Prereq: One course in philosophy other than PHI 120 or PHI 130. Recommended: PHI 232, PHI 260 or PHI 390.

PHI 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 PHI 120 or PHI 130.

PHI 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.

PHI 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 PHI 120 or PHI 130. Recommended: PHI 325.

PHI 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 PHI 120 or PHI 130. Recommended: PHI 231 or PHI 260.

PHI 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 PHI 120 or PHI 130.
PHI 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.

PHI 470 Contemporary European Philosophy. 3 hrs
An exploration of two recent developments in European thought: post-structuralist critiques of the European philosophical tradition, and the hermeneutic attempt to establish interpretation as the basis of philosophical understanding. Considers the nature of discourse, the deconstruction of subjectivity, writing as a subversive practice and the problem of gender. Possible philosophers include Kristeva, Irigaray, Spivak, Foucault, Gadamer, Ricoeur, and Derrida.
Prereq: Two courses in philosophy other than PHI 120 or PHI 130. Recommended: PHI 232, PHI 260, or PHI 390.

PHI 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 PHI 120 or PHI 130. Recommended: PHI 231.

PHI 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.

PHI 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

Don R. Lick
Department Head
515 Pray-Harrold
487-1444


Associate Professors: Shenhui Chu, David Folk, Christopher E. Hee, David C. Johnson, Mohammad Rafiq, Jayakumar Ramanathan, Kim L. Recorla, Carla Tayeh

Assistant Professors: Mahmoud Al-KhaJJaji, Lora Durham, Jiuxiang Liu, James R. Walter, Mary Yorke

Developmental Mathematics Program: Irene Duranczyk, Jill McClain, William Scheffler, 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

Advising for students desiring to pursue a major in mathematics is available from the undergraduate advising coordinators. These students are listed initially as "mathematics intent." To be accepted into one of the Mathematics department programs, the student should go to the appropriate advising coordinator and pick up a form for student program identification. Academic Advising will update the student's computer record code to indicate the program into which the student has been accepted. Other 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 MTH 104, 105, 107, 112, or 119 after credit for MTH 120 has been earned.

Students majoring in mathematics must complete at least nine semester hours and minors must complete at least six semester hours from courses numbered 300 or above.

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:
- Mathematics: Richard W. Marshall
- Secondary mathematics education: Richard W. Marshall
- Elementary mathematics education: John L. Ginther, Donald A. Buckeye
- Actuarial examinations: Nelly S. Ullman, Bette Warren
- Actuarial science and economics: Nelly Ullman and Bette Warren (mathematics), Young-Iob Chung (economics)

Graduate study leads to the master’s degree in mathematics. The MA degree is described in the Graduate Catalog. For information, contact the graduate advising coordinator, Ken Shiskowski.

ACADEMIC MAJORS

Students interested in lucrative careers in business and industry are advised to take the Actuarial Examinations, Part I after completing MTH 223 Multivariable Calculus and Part II after completing MTH 471 Probability and Statistics II. These are the first two of a series of examinations sponsored by the Society of Actuaries.

MATHEMATICS MAJOR

Major in mathematics ............................................................. 34

In addition to the 34 semester hour requirement, non-teaching majors must take MTH 211 Discrete Mathematics or CSC 330 Discrete Mathematical Structures, as well as CSC 137 Introduction to FORTRAN Programming, CSC 138 Computer Science I, or CSC 237 Computer Programming and Numeric Methods, or an equivalent course as determined by the mathematics advising coordinator.

1. Required courses .......................................................... 22
   MTH 120-121 Calculus I-II .............................................. 8
   MTH 122 Elementary Linear Algebra .................................... 3
   MTH 223 Multivariable Calculus .................................... 4
   MTH 370 Probability and Statistics I .................................. 4
   MTH 411 Modern Algebra with Applications or MTH 416 Linear Algebra or MTH 420 Introduction to Analysis ............................................................. 3

2. Restricted electives ......................................................... 12
   Choose 12 credits from the following:

3. Recommended courses for double majors
   Students electing a double major with mathematics—business, the social sciences, biological, or physical science—should consult an advising coordinator to choose appropriate courses. MTH 411 Modern Algebra with Applications, MTH 416 Linear Algebra, and MTH 420 Introduction to Analysis are strongly recommended for double majors and those preparing for graduate work.

   - Biology: MTH 418 Applied Linear Algebra, MTH 471 Probability and Statistics II
   - Business: MTH 325 Differential Equations, MTH 418 Applied Linear Algebra, MTH 436 Introduction to Numerical Analysis, MTH 471 Probability and Statistics II
   - Chemistry: MTH 325 Differential Equations, MTH 418 Applied Linear Algebra, MTH 425 Mathematics for Scientists, MTH 436 Introduction to Numerical Analysis
   - Economics: MTH 325 Differential Equations, MTH 418 Applied Linear Algebra
   - Physics: MTH 325 Differential Equations, MTH 416 Linear Algebra, MTH 418 Applied Linear Algebra, MTH 425 Mathematics for Scientists, MTH 436 Introduction to Numerical Analysis
   - Psychology: MTH 418 Applied Linear Algebra, MTH 471 Probability and Statistics II

MATHEMATICS WITH CONCENTRATION IN STATISTICS MAJOR

Sem hours

Major in mathematics with concentration in statistics ........................................ 37

1. Required Courses .......................................................... 28
   - MTH 120-121 Calculus I-II .............................................. 8
   - MTH 122 Elementary Linear Algebra .................................... 3
   - MTH 220 Multivariable Calculus .................................... 4
   - MTH 370 Probability and Statistics I .................................. 4
   - MTH 411 Modern Algebra with Applications or MTH 416 Linear Algebra or MTH 420 Introduction to Analysis ............................................................. 3

2. 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:
     - MTH 460 Applied Survey Sampling ...................................... 3
     - MTH 474 Applied Statistics ............................................... 3
   - Mathematics Electives:
     - MTH 416 Linear Algebra .................................................. 3
     - MTH 418 Applied Linear Algebra ....................................... 3
     - MTH 420 Introduction to Analysis ..................................... 3
     - MTH 472 Problems in Actuarial Studies II .................................... 3

3. Additional Requirement ................................................... 3
   CSC 137 Introduction to FORTRAN Programming or CSC 138 Computer Science I or CSC 237 Computer Programming and Numeric Methods

ACTUARIAL SCIENCE AND ECONOMICS MAJOR

Actuarial science and economics is a joint program of the Mathematics and Economics Departments. In addition to following a prescribed series of courses, students are expected to pass the first two actuarial examinations. The examinations are sponsored by leading actuarial societies and administered in numerous U.S. locations. The first of these covers calculus and linear algebra and the second covers mathematical statistics. MTH 372 and 472 are designed to prepare students for these examinations.
MAJOR IN ACTUARIAL SCIENCE AND ECONOMICS

1. Required courses
   a. Basic studies
   b. Mathematics
   c. Economics
   d. Restricted electives

2. Additional Requirement

MINOR IN MATHEMATICS

1. Required courses
   a. Basic studies
   b. Mathematics
   c. Introduction to FORTRAN Programming
   d. Multivariable Calculus
   e. Linear Algebra
   f. Discrete Mathematics
   g. Probability and Statistics
   h. Actuarial Studies

2. Restricted electives

3. Additional Requirement

MINOR IN MATHEMATICS WITH CONCENTRATION IN STATISTICS

1. Required courses
   a. Basic studies
   b. Mathematics
   c. Statistics
   d. Actuarial Studies

2. Restricted electives

3. Additional Requirement

TEACHING MAJORS

MATHEMATICS MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in mathematics, certification code "EX," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #22, "Mathematics."

Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. MTH 120 Calculus I (4)*
I-B-5. One of
CSC 137 Introduction to FORTRAN Programming (3)
CSC 138 Computer Science I (3)
CSC 237 Computer Programming and Numerical Methods (3)

II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
II-B-4. Basic Studies requirement. See inside back cover
II-B-5. Basic Studies requirement. See inside back cover
II-B-6. Basic Studies requirement. See inside back cover
II-B-7. Basic Studies requirement. See inside back cover
II-B-8. Basic Studies requirement. See inside back cover

Credit hours in Basic Studies: 50

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.
MTH 121 Calculus I (4)
MTH 122 Elementary Linear Algebra (3)
MTH 211 Discrete Mathematics (3)
MTH 223 Multivariable Calculus (4)

One of:
- MTH 341 College Geometry (3)
- MTH 342 Elementary Space-Time Geometry (2)
- MTH 370 Probability and Statistics I (4)
  (MTH 360 may be used with permission)

MTH 411 Modern Algebra with Applications (3)

Six or seven credits from the following list. Credits in mathematics, including MTH 120 but not MTH 306, must total at least 34 hours.

- MTH 307 Elementary Number Theory (3)
- MTH 319 Mathematical Modeling (3)
- MTH 325 Differential Equations (3)
- MTH 341 College Geometry (3)
- MTH 342 Elementary Space-Time Geometry (2)
- MTH 372 Problems in Actuarial Studies (3)
- MTH 400 History and Development of Mathematics (3)
- MTH 416 Linear Algebra (3)
- MTH 420 Introduction to Analysis (3)
- MTH 424 Introduction to Complex Variables (3)
- MTH 425 Mathematics for Scientists (3)
- MTH 471 Probability and Statistics II (3)

Minor
A minor from the approved list (see p. 230)

Subtotal, Major and minor: ........................................... 50

Professional Studies
100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
MTH 306 Teaching of High School Mathematics (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: .................................. 34

Total credit hours required, with 20-hour minor: ............ 134

*Course required for and applicable to major.

1 Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.

MATHEMATICS FOR THE ELEMENTARY TEACHING CERTIFICATE MAJOR

ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in mathematics, certification code "EX." The certification test covering this field is #22, "Mathematics."

* MTH 108-109 Mathematics for Elementary Teachers I-II (6)
* MTH 120 Calculus I (4)
* MTH 240 Geometry for Elementary Teachers (3)
* MTH 301 Advanced Topics in Elementary Mathematics (3)

MTH 403 Current Research in Elementary School Mathematics (3)

11 hours from:
One of:
- *MTH 341 College Geometry (3)
- *MTH 342 Elementary Space-Time Geometry (2)
- MTH 370 Probability and Statistics I (4)
- MTH 360 Statistical Methods (3)
- *MTH 120-121 Calculus I-II (8)
- MTH 122 Elementary Linear Algebra (3)

Total credit hours required: ........................................... 125

Approved minors are those for the elementary program as given on page 230.

TEACHING MINORS

MATHEMATICS MINOR

K-12, SECONDARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in mathematics, certification code "EX." The certification test covering this field is #22, "Mathematics."

* MTH 120-121 Calculus I-II (8)
  One of:
  - MTH 304, MTH 306, or the CSC elective.

Sufficient credits from the following list to total 23 hours (not including MTH 304, MTH 306, or the CSC elective):

- MTH 211 Discrete Mathematics (3)
- MTH 223 Multivariable Calculus (4)
- MTH 307 Elementary Number Theory (3)
- MTH 319 Mathematical Modeling (3)
- MTH 325 Differential Equations (3)
- MTH 341 College Geometry (3)
- MTH 342 Elementary Space-Time Geometry (2)
- MTH 360 Statistical Methods (3)
- *MTH 360 Statistical Methods (3)
- MTH 370 Probability and Statistics I (4)
- MTH 400 History and Development of Mathematics (3)
- MTH 411 Modern Algebra with Applications (3)
- MTH 416 Linear Algebra (3)
- MTH 420 Introduction to Analysis (3)
- MTH 424 Introduction to Complex Variables (3)
MATH PREREQUISITES

Prereq: Program placement.

Students without credit in an EMU mathematics course, or
an 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 of­
cial 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.

MTH 100 Pre-College Mathematics: Arithmetic. 5 hrs
A developmental mathematics course designed to prepare students
whose current mathematics skills are insufficient for them to pass a
college-level mathematics course. The course covers basic arith­
matic and problem solving in a supportive but structured setting.
Prereq: Program placement.

MTH 101 Pre-College Mathematics: Beginning Algebra. 5 hrs
A developmental mathematics course designed to prepare those
students whose current mathematics skills are insufficient for them
to pass a college-level mathematics course. The course will cover
beginning algebra in a supportive but structured setting. This course
plus MTH 100 will cover the same material as MTH 102. Credit for
this course will not count toward any degree program.
Prereq: At least "C" in MTH 100, or placement.

MTH 102 Pre-College Mathematics. 5 hrs
A developmental mathematics refresher course designed to prepare
those students whose current mathematics skills are insufficient for
them to pass a college-level mathematics course. The course will
cover basic arithmetic through elementary algebra in a supportive
but structured setting. Credit for this course will not count toward
any degree program.
Prereq: Program placement.

MTH 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 MTH 101, or placement.

MTH 105 College Algebra. 3 hrs
Properties of the real numbers; equations and inequalities; functions;
sequences; mathematical induction; polynomial, rational, exponent­
al and logarithmic functions; introduction to probability.
Prereq: One and one-half to two years high school algebra or MTH
104.

MTH 107 Plane Trigonometry. 2 hrs
An elementary course in plane trigonometry. Students who have
good records in high school courses including trigonometric identi­
ties, trigonometric equations, and oblique triangles should not take
this course.
Prereq: One and one-half years of high school algebra or MTH
104, and one year of plane geometry.

MTH 108 Mathematics for Elementary Teachers. 3 hrs
The first of a two-course sequence which examines topics in the
elementary school mathematics curriculum from an advanced stand­
point, with an emphasis on concepts and problem solving. Topics
include number theory, real number systems and its properties,
algbera concepts, and functions. Required of all students in elemen­
tary and later elementary curriculums. Open only to prospective
elementary teachers.
Prereq: At least "C" in MTH 101, or placement.

MTH 109 Mathematics for Elementary Teachers II. 3 hrs
The second of a two-course sequence which examines topics in the
elementary school mathematics curriculum from an advanced stand­
point, with an emphasis on concepts and problem solving. Topics
include: elementary probability including both experimental and
theoretical; elementary statistics including exploratory data analy­
sis, descriptive statistics, and an introduction to inferential statisti­
cs; informal geometry including symmetry, similarity and congruence, and measurement. Required of all students in elemen­
tary and later elementary curriculums. Open only to prospective
elementary teachers.
Prereq: MTH 108.

MTH 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: Two years high school algebra, or MTH 105 and a high
school course in trigonometry, or MTH 107, or department permis­
sion.

MTH 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 MTH 101, or MTH 104, or placement.
MTH 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: Two years of high school algebra or MTH 104 or equivalent. Students who feel weak in algebra are encouraged to elect MTH 104 or MTH 105 first.

MTH 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, rates. Integral calculus, including indefinite integrals, the definite integral, the Fundamental Theorem of Integral Calculus, and applications of integration to area and volume.
Prereq: Students who feel well-prepared in precalculus mathematics (for example, with a "B" average in at least two years of high school algebra and a course in trigonometry) may take this course without further preparation. Those weak in algebra should complete MTH 105 with a "B" or better; those weak in trigonometry should complete MTH 107 with a "B" or better. Others should enroll in MTH 112 (provided they satisfy its prerequisites).

MTH 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: MTH 120 or equivalent.

MTH 122 Elementary Linear Algebra. 3 hrs
Vectors and matrices, operations on matrices, determinants, systems of linear equations, linear independence, linear transformations, applications.
Prereq: Students with a "B" average in high school and in high school mathematics through trigonometry may take this course in their first semester. Others should enroll in MTH 105 first (and in MTH 107 if not taken in high school).

MTH 130 Calculus Laboratory I. 1 hr
Computer laboratory class designed to reinforce the major concepts of first-semester calculus.
Prereq: Concurrent registration in MTH 120.

MTH 131 Calculus Laboratory II. 1 hr
Computer laboratory class designed to reinforce the major concepts of second-semester calculus.
Prereq: Concurrent registration in MTH 121.

MTH 150 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 MTH 101, or MTH 104, or placement.

MTH 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.

MTH 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: MTH 108.

MTH 211 Discrete Mathematics. 3 hrs
Logic, proofs, mathematical induction, sets, relations, equivalence and order relations, graphs, trees, functions, binary operations, semi-groups, groups, rings, fields, finite combinatorics, pigeonhole principle, permutations, combinations, discrete probabilities.
Prereq: MTH 121 and MTH 122.

MTH 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: MTH 121 and MTH 122 or equivalent.

MTH 233 Calculus Laboratory III. 1 hr
Computer laboratory class designed to reinforce the major concepts of third-semester calculus.
Prereq: Concurrent registration in MTH 223.

MTH 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: MTH 108.

MTH 270 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: MTH 105 or two years of high school algebra.

MTH 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.

MTH 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: MTH 109 or MTH 210 or MTH 240.

MTH 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: MTH 240 or MTH 120.

MTH 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: MTH 120.

MTH 307 Elementary Number Theory. 3 hrs
Primes, Euclidean algorithm and prime factorization, congruences, multiplicative functions, quadratic residues and reciprocity, contin-
ued fractions, Diophantine equations, possible applications to cryptography, and/or primality testing.
Prereq: MTH 211.

MTH 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: MTH 120 and MTH 122.

MTH 325 Differential Equations. 3 hrs
First and second order differential equations with applications, linear differential equations, power series solutions, Laplace transforms.
Prereq: MTH 121 and MTH 122.

MTH 341 College Geometry. 3 hrs
An introduction to several geometries such as affine, projective, space-time, and non-Euclidean.
Prereq: MTH 120 and MTH 122.

MTH 342 Elementary Space-Time Geometry. 2 hrs
In-depth study of a geometry other than Euclidean. Both synthetic and analytic treatment of Special Relativity.
Prereq: MTH 121.

MTH 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: MTH 121.

MTH 370 Probability and Statistics I. 4 hrs
Basic concepts of probability; expectation, variance, covariance distribution functions and their application to statistical tests of hypotheses; bivariate, marginal, and conditional distributions; treatment of experimental data. Applications to problems in science and/or social science are emphasized.
Prereq: MTH 223.

MTH 372 Problems in Actuarial Studies I. 2 hrs
Applications of mathematics to actuarial science. Particular attention paid to subjects 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: MTH 223; a minimum GPA in mathematics of 3.4 is strongly recommended.

MTH 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.

MTH 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 curriculums. Not open to students on academic probation.
Prereq: MTH 108 and junior standing.

MTH 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: MTH 210.

MTH 387 Cooperative Education. 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 (MTH 387 and MTH 487) alternated with full-time attendance at the University. Use on mathematics majors subject to department permission. Graded on a credit/no credit basis.
Prereq: Junior or senior majoring in mathematics, MTH 223, admittance to program by application only, department permission.

MTH 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: MTH 121 and MTH 122.

MTH 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: MTH 301 and MTH 381.

MTH 406 Introduction to Computability. 3 hrs
Computable functions, register machines, recursion, minimization, 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: MTH 223 or CSC 330.

MTH 411 Modern Algebra with Applications. 3 hrs
An introduction to the theory and concepts of modern algebra as well as to their role in unifying other mathematical notions and to their application in such areas as switching circuit design and coding theory: groups, rings, fields, Boolean algebras.
Prereq: MTH 121, MTH 122, and MTH 211; or department permission.

MTH 416 Linear Algebra. 3 hrs
Vector spaces, linear transformations, eigenvalues, inner product spaces, principal axis theorem, applications. Prereq: MTH 121, MTH 122, and MTH 211; or department permission.

MTH 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: MTH 120, MTH 122; CSC 137 or CSC 138 or CSC 237 or department permission.

MTH 419 Advanced Mathematical Modeling. 3 hrs
A course involving an in-depth study of mathematical models of greater complexity than is possible in MTH 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: MTH 319.

MTH 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: MTH 121 and MTH 211; or department permission.

MTH 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: MTH 223.

MTH 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: MTH 223.

MTH 426 Differential Equations II. 3 hrs
Systems of linear differential equations, transforms, qualitative theory of systems, existence and uniqueness theorems.
Prereq: MTH 325.

MTH 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 non-linear systems, numeric solution of differential equations, error analysis.
Prereq: MTH 223; and CSC 137 or CSC 138 or CSC 237 or department permission.

MTH 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 MTH 548 Introduction to Differential Geometry.
Prereq: MTH 223 and MTH 325.

MTH 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: MTH 360 or MTH 370.

MTH 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, multicolinearity, auto-correlation of error terms, residual analysis, stepwise regression. A statistical software package (SAS) is used extensively.
Prereq: MTH 122 and MTH 360 or MTH 370.

MTH 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: MTH 360 or MTH 370 or equivalent.

MTH 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. Non-parametric statistics: sequential tests, analysis of variance.
Prereq: MTH 223, MTH 370 and CSC 137 or department permission.

MTH 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: MTH 471 (may be taken concurrently); a minimum GPA in mathematics of 3.4 is strongly recommended.

MTH 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: MTH 360 or MTH 370.

MTH 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.

MTH 480 Honors Course in Mathematics. 2 hrs
The content of this course varies with the instructor and the individual student. It consists of advanced reading and/or an individual project of a difficult nature. The work will be done independently with periodic reports to the instructor.
Prereq: Completion of the requirements for a major with 3.5 grade point average in mathematics.

MTH 487 Cooperative Education. 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 (MTH 387 and MTH 487) alternated 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, MTH 387, department permission.

MTH 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

James B. Hause
Department Head
N101 Alexander
487-4380


Associate Professors: Ernest Brandon, Anne B. Gajda, Rachel B. Harley, Michael G. McGuire, Kristy Meretta, Louise R. Patrick, Garik Pedersen, Diane Winder

Assistant Professors: Daniel Foster, Donald C. Hartmann, Kevin Miller, David Pierce, Marilyn Saker, John R. Smith, David O. Woike

The Music department offers five baccalaureate degree programs as well as cultural enrichment for all students. Music is presented in the context of a broad liberal education; as preparation for teaching of vocal and instrumental music at the elementary and secondary levels; as preparation for becoming a music therapist; as basic training for professional careers as instrumentalists, singers, conductors, composers, arrangers, and music scholarship; and as preparation for concentrated graduate study and college teaching.

The department collaborates with other departments in dance, radio, television, and theatre. A marketing minor also is available to students interested in music-related businesses.

Housed in the Alexander Music Building, the department has three rehearsal halls, a recital hall, an organ recital/teaching studio, an electronic music studio, a computer lab, and 65 practice rooms.

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

Curricula:
- Music education (instrumental and vocal) for elementary education
- Music education (instrumental and vocal) for K-12 education
- Music performance
- Music therapy

Major:
- Music
- Music education (instrumental and vocal) for elementary education

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 Coordinator:
- Curricula for teachers of instrumental music, vocal music, and music therapy: Mary Teal
- Curriculum for music performance: Mary Teal
- Music major: Mary Teal
- General music, elementary music education minors: Mary Teal

Enrollment in any music curriculum will be determined by the results of instrumental or vocal auditions and theory-placement examinations in musicianship. All new students should write the director of music auditions and scholarships 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
(313) 487-4380

Music fees for students accepted for private music lessons are assessed according to the following applied music fee schedule:

Music majors: $60 per semester for all instruction.

Other University students: $60 per semester for a weekly one-hour lesson, $30 per semester for a weekly half-hour lesson.

Students from public schools and the community, and EMU staff and families: $90 per semester for a weekly one-hour lesson, $45 per semester for a weekly half-hour lesson, if teacher time is available.

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.

ACADEMIC MAJORS

CURRICULUM FOR MUSIC PERFORMANCE

The Bachelor of Music degree curriculum is available for students using voice, guitar, keyboard, or an orchestral instrument as the principal performing medium. All basic studies requirements must be completed including one approved course in cross-cultural or international studies. (Complete pattern sheet is available in the department.)

Area

Sem hours

Symbols and communication .................................................. 14-18
- Requirements 1, 2, 3, 4, and 5 (page 26)
Science and technology ........................................................ 9-14
- Requirements 1, 2, and 3 (page 27)
Social science ......................................................................... 12
- Requirements 1, 2, 3, and 4 (page 28)
Arts and humanities .................................................................. 9
- Requirements 1, 2, and 3 (page 29)

One course in art, music, or theatre arts (automatically met by fine arts courses below)
<table>
<thead>
<tr>
<th>Fine arts</th>
<th>92-98</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Applied music</td>
<td>40</td>
</tr>
<tr>
<td>Recommended at four semester hours for eight semesters with both a junior and senior recital required</td>
<td>32</td>
</tr>
<tr>
<td>Music courses chosen according to area of specialization</td>
<td>8</td>
</tr>
<tr>
<td>2. Supporting courses</td>
<td>48-52</td>
</tr>
<tr>
<td>MUS 101-102 Music Theory I-II</td>
<td>6</td>
</tr>
<tr>
<td>MUS 118, 128 Music Literature I, II</td>
<td>2</td>
</tr>
<tr>
<td>MUS 119, 129 Aural Skills I, II</td>
<td>2</td>
</tr>
<tr>
<td>MUS 201-202 Music Theory III-IV</td>
<td>6</td>
</tr>
<tr>
<td>MUS 218, 228 Music Literature III, IV</td>
<td>2</td>
</tr>
<tr>
<td>MUS 219, 229 Aural Skills III, IV</td>
<td>2</td>
</tr>
<tr>
<td>MUS 301-302 History of Music</td>
<td>6</td>
</tr>
<tr>
<td>MUS 413 Orchestration</td>
<td>2</td>
</tr>
<tr>
<td>MUS 414 Band Arranging</td>
<td>2</td>
</tr>
<tr>
<td>Secondary instruments</td>
<td>4</td>
</tr>
<tr>
<td>Ensembles</td>
<td>8</td>
</tr>
<tr>
<td>Conducting</td>
<td>2-4</td>
</tr>
<tr>
<td>3. Electives</td>
<td>4-6</td>
</tr>
<tr>
<td>(If a student takes a two-course sequence in conducting, only four hours of electives are available)</td>
<td></td>
</tr>
<tr>
<td>Physical education and health</td>
<td>2</td>
</tr>
<tr>
<td>Physical education activity courses</td>
<td>2</td>
</tr>
<tr>
<td>(Any two courses in military science or two semesters of Marching Band may be applied)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>136-149</td>
</tr>
</tbody>
</table>

**CURRICULUM FOR MUSIC THERAPY**

The Bachelor of Music Therapy degree is awarded upon completion of this curriculum. The degree program is approved by the National Association for Music Therapy.

All students must take the courses specified in education and fine arts.

### Area

<table>
<thead>
<tr>
<th>Symbolics and communication</th>
<th>14-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements 1 and 2 (page 26)</td>
<td>5-6</td>
</tr>
<tr>
<td>Choose one course from the following:</td>
<td></td>
</tr>
<tr>
<td>CTA 255 Listening Behavior, CTA 226 Non-Verbal Communication, CTA 227 Interpersonal Communication, CTA 374 Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>SOC 250 Social Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>HHS 226 Computers for Health and Human Services</td>
<td>3</td>
</tr>
<tr>
<td>Science and technology</td>
<td>19-20</td>
</tr>
<tr>
<td>A course in physical science</td>
<td>3</td>
</tr>
<tr>
<td>BIO 105 Biology and the Human Species</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 326 Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101/102 General Psychology</td>
<td>3-4</td>
</tr>
<tr>
<td>PSY 360 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Choose one psychology elective</td>
<td>3</td>
</tr>
</tbody>
</table>

### Social science

| Requirements 1 and 2 (page 28) | 6 |
| SOC 105 Introductory Sociology | 3 |
| SOC 202 Social Problems | 3 |

### Arts and humanities

| Requirements 1, 2, and 3 (page 29) | 6 |
| Choose one course in art, music, or theatre arts (automatically met in fine arts courses below) | 3 |
| Education | 3 |
| SGN 251 Education of Exceptional Children | 3 |

### Fine arts

| 1. Music theory and history courses | 28 |
| MUS 101-102 Music Theory I-II | 6 |
| MUS 118, 128 Music Literature I, II | 2 |
| MUS 119, 129 Aural Skills I, II | 2 |
| MUS 201-202 Music Theory III-IV | 6 |
| MUS 218, 228 Music Literature III, IV | 2 |
| MUS 219, 229 Aural Skills III, IV | 2 |
| MUS 301-302 History of Music | 6 |
| MUS 413 Orchestration | 2 |
| MUS 414 Band Arranging | 2 |
| AMU 100-300 Applied Music (principal instrument) | 14 |
| Minimal performance skills as recommended by the National Association for Music Therapy |

Most students should be able to meet some of these skill requirements upon entrance or they can be achieved through the courses listed below:

- **Voice**: MUS 232 Voice Class and AMU 101-A01
- **Applied Music**: MUS 413 Orchestration
- **Band Arranging**: MUS 414 Band Arranging
- **Secondary instruments**: MUS 414 Band Arranging

### Physical education and health

| Choose two activity courses from the following: |
| PEG 103 Couple, Square, and Ballroom Dancing, PEG 155 Jazz I, PEG 158 Folk Dancing, PEG 161 Modern Dance, PEG 255 Jazz II, PEG 258 Intermediate Folk Dancing, PEG 261 Intermediate Modern Dance | 2 |
| Total | 140-142 |

**MUSIC MAJOR**

Students must complete the requirements for the Bachelor of Arts or Bachelor of Science degrees by including the academic major below and a different minor subject of 20-24 semester hours in some other department. Students will not earn a teaching certificate by completing this major.

Students must complete all basic studies requirements including one approved course in cross-cultural or international studies. (Complete pattern sheet is available in the department.)

### Area

<table>
<thead>
<tr>
<th>Major in music</th>
<th>49</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required courses</td>
<td>44</td>
</tr>
<tr>
<td>MUS 101-102 Music Theory I-II</td>
<td>6</td>
</tr>
<tr>
<td>MUS 118, 128 Music Literature I, II</td>
<td>2</td>
</tr>
<tr>
<td>MUS 119, 129 Aural Skills I, II</td>
<td>2</td>
</tr>
<tr>
<td>MUS 201-202 Music Theory III-IV</td>
<td>6</td>
</tr>
<tr>
<td>MUS 218, 228 Music Literature III, IV</td>
<td>2</td>
</tr>
<tr>
<td>MUS 219, 229 Aural Skills III, IV</td>
<td>2</td>
</tr>
<tr>
<td>MUS 301-302 History of Music</td>
<td>6</td>
</tr>
<tr>
<td>MUS 413 Orchestration</td>
<td>2</td>
</tr>
<tr>
<td>MUS 414 Band Arranging</td>
<td>2</td>
</tr>
<tr>
<td>AMU 100-300 Applied Music (principal instrument)</td>
<td>12</td>
</tr>
<tr>
<td>MUS 251-252 Functional Piano</td>
<td>2</td>
</tr>
<tr>
<td>Ensembles</td>
<td>2</td>
</tr>
<tr>
<td>2. Electives in music</td>
<td>3</td>
</tr>
</tbody>
</table>
ACADEMIC MINOR

GENERAL MUSIC MINOR

Students seeking admission to the general minor in music must complete an application at the Department of Music office and take placement tests in applied music and basic musicianship. Each must work out a course of study with a designated music advisor.

Minor in general music ........................................ 20 sem hours

APPLIED 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 Department of Music 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:

Voice  Harp  Saxophone  Piano
Guitar*  Trumpet  Harpsichord  Organ
Percussion  Cornet  Violin  Flute
Trombone  Viola  Oboe  Euphonium
Cello  Bassoon  French horn  String bass
Clarinet  Tuba

*Guitar does not qualify as a principal instrument in the Bachelor of Music Education curriculum. Acceptable for Bachelor of Arts, Bachelor of Science, or Bachelor of Music degree with major in music.

Principal Instruments

The baccalaureate degrees require varying semester 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.

TEACHING MAJORS

MUSIC EDUCATION (INSTRUMENTAL) MAJOR
K-12 TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in music education, certification code "JE." The certification test covering this field is #39, "Music Education."

Basic Studies
I-B-1.  ENG 121 English Composition (3)
I-B-2.  Basic Studies requirement. See inside back cover
I-B-3.  Basic Studies requirement. See inside back cover
I-B-4.  Basic Studies requirement. See inside back cover
I-B-5.  Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover

II-B-2.  Basic Studies requirement. See inside back cover
II-B-3.  Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Arts—Included in the teaching major.

Physical education, military science, or equivalent
PEG 140 Marching Band (2)

Credit hours in Basic Studies: .............................................. 47

Teaching Major/Minor

MUS 101-102 Music Theory I-II (6)
MUS 118, 128 Music Literature I-II (2)
MUS 119, 129 Aural Skills I-II (2)
MUS 201-202 Music Theory III-IV (6)
MUS 218, 228 Music Literature III-IV (2)
MUS 219, 229 Aural Skills III-IV (2)
MUS 232 Voice Class (1)
MUS 301 History of Music (3)
MUS 302 History of Music (3)
MUS 413 Orchestration (2)
MUS 414 Band Arranging (2)
MUS 211 Basic Brass Class (1)
MUS 241 Percussion (1)
MUS 261 Basic String Class: Violin (1)
MUS 281 Basic Woodwind Class (1)
Two of:
MUS 212 Brass Class (1)
MUS 262 String Class: Viola (1)
MUS 263 String Class: Cello and Double Bass (1)
MUS 282 Woodwind Class (1)
MUS 283 Woodwind Class (1)
MUS 251-254 Functional Piano (4)
AMU 100-300 Approved Music (principal instrument) (16)
MUS 326 Conducting (2)
MUS 327 Instrumental Conducting (2)
Ensembles (8)
Electives (4)

Subtotal, Major and minor: .............................................. 73

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
MUS 332 Instrumental Music in the Public Schools (3)
One of:
MUS 333 Orchestral Methods (3)
MUS 334 Band Methods (3)
EDU 496 Student Teaching (6)
EDU 497 Student Teaching (6)

Credit hours in Professional Studies: ................................... 30

Total credit hours required: ............................................. 152
MUSIC EDUCATION (VOCAL) MAJOR
K-12 TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in music education, certification code "JX." The certification test covering this field is #39, "Music Education."

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Arts
Included in the teaching major.

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ...........................................47

Teaching Major
MUS 101-102 Music Theory I-II (6)
MUS 118, 128 Music Literature I-II (2)
MUS 119, 129 Aural Skills I-II (2)
MUS 201-202 Music Theory III-IV (6)
MUS 218, 228 Music Literature III-IV (2)
MUS 219, 229 Aural Skills III-IV (2)
MUS 301 History of Music (3)
MUS 302 History of Music (3)
MUS 413 Orchestration (2)
MUS 274 Functional Guitar (2)
Two of:
MUS 212 Brass Class (1)
MUS 241 Percussion (1)
MUS 261 Basic String Class: Violin (1)
MUS 281 Basic Woodwind Class (1)
AMU 100-300 Applied Music (principal instrument) (16)
One of:
AMU 251-4 B11-12 Applied Music (if keyboard is secondary instrument) (0-6)
AMU A01-A12 Applied Music in Voice (if secondary instrument) (0-6)
MUS 326 Conducting (2)
MUS 328 Choral Conducting (2)
Ensembles (8)
Electives (2)

Subtotal, Major and minor: ...........................................62

Professional Studies
100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
MUS 330 Music Education in the Elementary School (3)
MUS 331 Music Education in the Secondary School (3)
EDU 496 Student Teaching (6)
EDU 497 Student Teaching (6)

Credit hours in Professional Studies: ..................................30

Total credit hours required: ............................................138

MUSIC MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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."

The curriculum for this major is that which is listed under "Teaching Major" in the K-12 music (vocal) program. No minor is required.

75 hours for instrumental, 80 hours for vocal.

For certification in both K-12 Music and K-8 Elementary Education student teaching in both Music (12 hours) and Elementary Education (12 hours) is required

TEACHING MINOR

ELEMENTARY MUSIC EDUCATION MINOR
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

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."

24 hours in music theory, music literature, music education, applied music, conducting, and piano. Three or four semester 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 completed before student teaching in the minor field.

MUSIC COURSES

THEORY-LITERATURE AND HISTORY

MUS 100 Introduction to Music Theory. 3 hrs
Designed for the non-music major. A preparatory course for MUS 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.

MUS 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. Generally taken concurrently with MUS 118 and MUS 119.

Prereq: Department permission. Music majors/minors or placement examination.
MUS 102 Music Theory II. 3 hrs
Continuation of MUS 101. For music majors and minors. Generally taken concurrently with MUS 128 and MUS 129.
Prereq: MUS 101, MUS 118, MUS 119, or placement examination.

MUS 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. Non-music majors only.

MUS 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. Non-music majors only.

MUS 118 Music Literature I. 1 hr
Stylistic analysis and aural presentation of selected 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 MUS 101. Generally taken concurrently with MUS 101 and MUS 119.
Prereq: Department permission. Music majors/minors or placement examination.

MUS 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 MUS 101. Generally taken concurrently with MUS 101 and MUS 118.
Prereq: Department permission. Music majors/minors or placement examination.

MUS 127 The Splendid Centuries of Austria. 3 hrs
A survey of the art, music, and literature of Austria from the 17th to early 20th century in its intellectual, political, and social setting. Baroque and Rococo art, and Classical and Romantic music and literature are considered. Extensive use is made of recordings and slides. Team taught by a member of one of the fine arts Departments and a member of the History Department. This course satisfies one fine arts or one history requirement. Note: See Honors Humanities Courses, page 30.

MUS 128 Music Literature II. 1 hr
A continuation of MUS 118. Stylistic analysis and aural presentation of selected 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 MUS 102. Generally taken concurrently with MUS 102 and MUS 129.
Prereq: MUS 118 or placement examination. Music majors/minors.

MUS 129 Aural Skills II. 1 hr
A continuation of MUS 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 MUS 102. Generally taken concurrently with MUS 102 and MUS 128.
Prereq: Music majors/minors. MUS 101, MUS 118, MUS 119, or placement examination.

MUS 201 Music Theory III. 3 hrs
Continuation of MUS 102 with more emphasis on harmonic, melodic, compositional, and structural techniques of 19th and 20th centuries. Generally taken concurrently with MUS 218 and MUS 219.
Prereq: MUS 102, MUS 128, MUS 129, or placement examination.

MUS 202 Music Theory IV. 3 hrs
Continuation of MUS 201. For music majors/minors. Generally taken concurrently with MUS 228 and MUS 229.
Prereq: MUS 201, MUS 218, MUS 219, or placement examination.

MUS 203 Jazz Styles, History, and Analysis. 2 hrs
Presents stylistic, historical, and analytical perspectives in jazz from its origin through the present. Includes vocal jazz, extensive use of recordings.
Prereq: Music majors/minors, sophomore standing, MUS 102, or department permission.

MUS 218 Music Literature III. 1 hr
A continuation of MUS 128. Stylistic analysis and aural presentation of selected 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 MUS 201. Generally taken concurrently with MUS 201 and MUS 219.
Prereq: MUS 102, MUS 128, MUS 129, or placement examination. Music majors/minors.

MUS 219 Aural Skills III. 1 hr
A continuation of MUS 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 MUS 201. Generally taken concurrently with MUS 201 and MUS 218.
Prereq: Music majors/minors. MUS 102, MUS 128, MUS 129, or placement examination.

MUS 228 Music Literature IV. 1 hr
A continuation of MUS 218. Stylistic analysis and aural presentation of selected 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 MUS 202. Generally taken concurrently with MUS 202 and MUS 229.
Prereq: MUS 201, MUS 218, MUS 219; or placement examination. Music majors/minors.

MUS 229 Aural Skills IV. 1 hr
A continuation of MUS 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 MUS 202. Generally taken concurrently with MUS 202 and MUS 228.
Prereq: Music majors/minors. MUS 201, MUS 218, MUS 219; or placement examination.

MUS 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: MUS 202.

MUS 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 MUS 301 but with a strong concentration in contemporary music. Covers classical, Romantic, and present periods.
Prereq: MUS 301.

MUS 317 Music Composition. 2 hrs
Original writing and analysis of music, beginning with the smaller forms. May be repeated for credit.
Prereq: MUS 202 and department permission.
MUS 341 Contrapuntal Techniques. 2 hrs
Writing in polyphonic forms with concomitant analysis.
Prereq: MUS 202.

MUS 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; the study of orchestration with assignments in writing for instruments individually as well as in combination.
Prereq: MUS 202.

MUS 402 Music Theory-Literature VI. 2 hrs
Continuation of MUS 401.
Prereq: MUS 401.

MUS 413 Orchestra. 2 hrs
Practical work in setting compositions for full orchestra and various other instrumental ensembles.
Prereq: MUS 202.

MUS 414 Band Arranging. 2 hrs
Arranging for band; transcription from other media; original composition; analysis of representative work.
Prereq: Senior standing and department permission.

MUSIC EDUCATION COURSES

MUS 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.

MUS 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. Non-music majors only.

MUS 152 Class Piano. 2 hrs
Continuation of MUS 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: MUS 151 or department permission.

MUS 211 Basic Brass Class. 1 hr
The teaching and playing of trumpet and trombone. Majors and minors only.

MUS 212 Brass Class. 1 hr
The teaching and playing of French horn, euphonium, and tuba. Majors and minors only.

MUS 224 Recreational Music. 2 hrs
For recreation majors. Specific activities, techniques, and resources for directing recreational music programs.

MUS 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.

MUS 235 Diction in Singing. 2 hrs
The physiological descriptions and laboratory practice of diction as used in singing.
Prereq: Department permission.

MUS 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.

MUS 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.

MUS 262 String Class: Viola. 1 hr
Continuation of MUS 261; teaching and playing of viola. Majors and minors only.
Prereq: MUS 261.

MUS 263 String Class: Cello and Double Bass. 1 hr
The teaching and playing of cello and double bass. Majors and minors only.

MUS 271 Beginning Classical Guitar. 2 hrs
Group instruction in classical guitar through the study of standard beginning methods and repertoire.
Prereq: Department permission.

MUS 272 Intermediate Classical Guitar. 2 hrs
Group instruction in classical guitar through the study of standard intermediate methods and repertoire.
Prereq: MUS 271.

MUS 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.

MUS 281 Basic Woodwind Class. 1 hr
The teaching and playing of clarinet. Majors and minors only.

MUS 282 Woodwind Class. 1 hr
The teaching and playing of flute and saxophone. Majors and minors only.

MUS 283 Woodwind Class. 1 hr
The teaching and playing of oboe and bassoon. Majors and minors only.

MUS 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: MUS 104 and junior standing.

MUS 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 pre-student teaching experience. Open to music education majors and minors only.
Prereq: Junior standing. Completion of MUS 254 and AMU 114/ 115/116, or AMU 105/106 and AMU 134/135/136; MUS 202; satisfactory academic record and department permission. Coreq: MUS 326.

MUS 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 MUS 330, Proficiency in piano and voice; satisfactory academic record and department permission. Coreq: MUS 328.

MUS 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: MUS 332 and junior standing.

MUS 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 education majors. No students on academic probation.

Prereq: MUS 332 and junior standing.

MUS 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: MUS 332 and junior standing.

MUS 361 Methods and Materials for Teaching Piano. 3 hrs

Study of methods and materials suitable for use with beginning- and intermediate-level students.

Prereq: MUS 332 and junior standing.

MUSIC THERAPY

MUS 102 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 activities utilized by music therapists to achieve specific therapeutic goals. Observation of registered music therapists in hospital, clinical, and school settings is required.

Prereq: MUS 303 or department permission.

MUS 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: MUS 103.

MUS 222 Pre-Clinical Training Practicum in Music Therapy I. 1 hr

Introductory field work experience in music therapy. Observation and documentation of music therapy sessions in clinical or educational settings.

Prereq: MUS 102, MUS 103.

MUS 223 Pre-Clinical Training Practicum in Music Therapy II. 1 hr

Continuation of MUS 222. Leadership or co-leadership of music therapy sessions.

Prereq: MUS 222.

MUS 303 Music Therapy Principles I. 4 hrs

Examination of the research literature dealing specifically with the influence of music on behavior, including neuro-physiological 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 101/102, MUS 221, MUS 222, and MUS 223.

MUS 304 Music Therapy Principles II. 4 hrs

Continuation of MUS 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: MUS 303.

MUS 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: MUS 304 or department permission.

MUS 405 Psychology of Music II. 2 hrs

Continuation of MUS 404. In-depth exploration of empirical research in the field, with opportunities to conduct individual investigation of selected topics.

Prereq: MUS 404.

MUS 424 Pre-Clinical Training Practicum in Music Therapy III. 1 hr

Field work experience in clinical or educational setting under supervision of a registered music therapist. Taken concurrently with MUS 427.

Prereq: Senior standing in music therapy program; MUS 304.

MUS 425 Pre-Clinical Training Practicum in Music Therapy IV. 1 hr

Field work experience continued. Taken concurrently with MUS 428.

Prereq: MUS 424.

MUS 488 Clinical Training in Music Therapy. 2 hrs

Six months 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.

COOPERATIVE EDUCATION

MUS 387 Cooperative Education. 3 hrs

A cooperative work experience in the field of music.

Prereq: Department permission.

MUSIC HONORS

MUS 490 Honors Course in Music. 2 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).

Honors program available. Consult with department adviser, Mary Teal.
SPECIAL TOPICS COURSES

MUS 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.

MUS 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.

MUS 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.

MUS 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.

APPLIED MUSIC COURSES

AMU 100 01-04. 1 to 2 hrs
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 either music major or minor curriculum.
Prereq: Department permission.

AMU 100 11-22. 1 to 4 hrs
Lower level work for music majors and minors only. May be repeated for credit.

AMU 100 01-22. 1 hr
For music minors. May be repeated for credit.

AMU 300 31-62. 1 to 4 hrs
Upper level work for music majors and minors. May be repeated for credit.

SECONDARY INSTRUMENTS

MUS 251 Functional Piano. 1 hr
Required for all music majors and minors with previous piano experience. Teaches keyboard skills necessary both for accompaniment of simple music and for developing musical understanding basic to all coursework in music.
Prereq: Majors or minors only.

MUS 252 Functional Piano. 1 hr
Continuation of MUS 251.
Prereq: MUS 251 or equivalent. Majors or minors only.

MUS 253 Functional Piano. 1 hr
Continuation of MUS 252. Stresses keyboard harmony, accompaniment, sight-reading, piano literature, and technique.
Prereq: MUS 252. Majors or minors only.

MUS 254 Functional Piano. 1 hr
Continuation of MUS 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: MUS 253 or equivalent. Majors or minors only.

MUS 305 Keyboard Skills. 2 hrs
Sight reading, harmonization, transposition, improvisation, and score reading. Open to keyboard majors and to others by department permission.
Prereq: MUS 102, MUS 254. Majors or minors only.

MUS 326 Conducting. 2 hrs
Fundamentals of baton technique, score reading, and interpretation of instrumental and vocal music.
Prereq: Junior standing. Majors or minors only.

MUS 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: MUS 326.

MUS 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: MUS 326.

LARGE ENSEMBLES

MUS 131 University Choir. 1 hr
An ensemble of advanced singers. Open to all students in the University.
Prereq: Department permission.

MUS 134 University Women's Chorus. 1 hr
Open to all women students.
Prereq: Department permission.

MUS 135 University Men's Chorus. 1 hr
Open to all men students.
Prereq: Department permission.

MUS 136 Madrigal Ensemble. 1 hr
Chamber music for mixed voices. Open to all students.
Prereq: Department permission.

PEG 140 Marching Band. 1 hr
(See Department of Health, Physical Education, Recreation, and Dance.)

MUS 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 post-season basketball competition. MUS 149 may not serve to fulfill Group V basic studies requirement.
Prereq: Department permission.

MUS 248 Orchestra. 1 hr
Open to all students in the University.
Prereq: Department permission.

MUS 249 Band. 1 hr
MUS 249 includes Concert Winds, Symphonic Band, and Marching Band. Open to all students of the University. Enrollment in MUS 249 requires attendance for the entire semester. Students electing MUS 249 may also elect PEG 140 for one credit.

MUS 350 Contemporary Chamber Ensemble. 1 hr
Various mixed ensembles of soloists. Devoted to performance of 20th-century music, especially of the last 15 years. Compositions require performers on all instruments, solo voices, and, on occasion, electronic music. Open to all qualified musicians.
Prereq: Department permission.
MUS 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.
Prereq: Department permission.

MUS 445 The Opera. 2 hrs
The history and literature of opera from its inception to the present
day as music and theater.
Prereq: Voice major or department permission.

MUS 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.

SMALL ENSEMBLES

MUS 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 twentieth-century percussion en­
semble literature in a variety of styles.
Prereq: Percussion major or minor or department permission.

MUS 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.

MUS 245 Brass Ensemble. 1 hr
Chamber music for brass.
Prereq: Department permission.

MUS 246 String Ensemble. 1 hr
Chamber music for strings.
Prereq: Department permission.

MUS 247 Woodwind Ensemble. 1 hr
Chamber music for woodwinds.
Prereq: Department permission.

MUS 475 Chamber Music Performance. 2 hrs
Study and performance of literature for small chamber groups. May
be repeated for credit.
Prereq: Department permission.

PHILOSOPHY
(SEE UNDER HISTORY AND PHILOSOPHY)

PHYSICS AND ASTRONOMY

Dan Trochet
Department Head
303 Strong Hall
487-4144

Professors: James C. Porter, Dan Trochet, Jon K. Woolery
Associate Professors: Diane A. Jacobs, Alexandria Oakes, Nathi
Sharma, James P. Sheerin, Marshall Thomsen
Assistant Professors: Weidian Shen, Bonnie L. Wylo
Instructor: David D. Reid

The Physics and Astronomy department offers majors in phys­
ics, physics research, and engineering physics. Minors are offered in
astronomy, general science, and physics. The department also admin­
isters interdisciplinary offerings in applied science and general sci­
ence. Transfer students who wish to major in physics, physics research,
or engineering physics must take a minimum of nine semester 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 semester
hours of coursework 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-Biology for secondary education
General science-Chemistry for secondary education
General science-Earth Science for secondary education
General science-Mathematics for secondary education
General science-Physics for secondary education

Group minors:
General science

Majors:
Engineering physics
Geophysics
Physics research
Physics for secondary education

Minors:
Astronomy
Astronomy for secondary, K-12, and special education-
secondary
General science
General science for secondary, K-12, and special education-
secondary
Physics
Physics for secondary, K-12, and special education-second­
ary

Advising is assigned according to the indicated field of study.

Advising coordinators:
Applied science curriculum: Dan Trochet
Astronomy minor: David Reid, Jon Woolery
Engineering physics: Alexandria Oakes, Weidian Shen
Physics majors: Diane Jacobs, David Reid, Marshall Thomsen
General science major/minor: Jon Woolery, Bonnie Wylo
Geophysics: James Sheerin
Physics-research major: Nathi Sharma, James Sheerin

Graduate study leads to the master's degree in physics re­
search, physics education, or general science. These programs are
described in the Graduate Catalog.
ACADEMIC MAJORS

APPLIED SCIENCE CURRICULUM

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 semester hours in each of two departments (chemistry, mathematics, or physics) and 36 semester 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 basic studies requirements, all students on this curriculum must complete all other courses specified.

<table>
<thead>
<tr>
<th>Area</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science and technology</td>
<td>68-70</td>
</tr>
</tbody>
</table>

1. Required courses ........................................ 50
   - CHM 121-124 General Chemistry I-II with labs ........... 8
   - CHM 241 Materials Science ................................. 3
   - CHM 281 Quantitative Analysis ............................. 4
   - Mathematics and computer science courses ............... 17
   - MTH 120-121 Calculus I-II ................................. 8
   - MTH 122 Elementary Linear Algebra ......................... 2
   - MTH 223 Multivariable Calculus ............................. 4
   - CSC 237 Computer Programming and Numeric Methods ....... 3

2. Restricted electives ....................................... 18-20
   Choose 18-20 credits from one of the following groups to complete the major: chemistry, mathematics, or physics.

   Chemistry: CHM 371, 372 Organic Chemistry I and II;
               CHM 373 Organic Chemistry Laboratory; CHM 461,
               462 Physical Chemistry I and II; and electives chosen in consultation with the advising coordinator in applied science.

   Mathematics: MTH 325 Differential Equations, MTH 425
                Mathematics for Scientists, and electives chosen in consultation with the 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.

Social science ..................................................... 12
Arts and humanities ........................................... 12-14
Practical arts .................................................... 6
- IT 122 Engineering Graphics I ............................ 3
- IT 223 Engineering Graphics II ............................ 3
Physical education and health .............................. 2
   Physical education activity courses ........................ 2
   (Any two courses in military science may be applied)
Electives .......................................................... 2-10
Total ............................................................... 124

GROUP MAJOR/MINOR IN GENERAL SCIENCE

This 56 semester 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 semester hour cognate minor in one of the areas listed above and a 36 hour group major composed of courses from the other four areas.

<table>
<thead>
<tr>
<th>Group major</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology .....</td>
<td>20</td>
</tr>
<tr>
<td>Chemistry</td>
<td>20</td>
</tr>
<tr>
<td>Earth science</td>
<td>21</td>
</tr>
<tr>
<td>Mathematics</td>
<td>20</td>
</tr>
<tr>
<td>Physics</td>
<td>20</td>
</tr>
</tbody>
</table>

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:
   - AST 205 Principles of Astronomy; CHM 121-122 General Chemistry I with lab; GES 108 Earth Science;
   - GES 324 Weather; MTH 105 College Algebra;
   - MTH 107 Plane Trigonometry; PHY 221
   - Mechanics, Sound, and Heat; PHY 222 Electricity and Light
   - Approved electives in biology, earth science, mathematics, and physics

With a chemistry minor, take the following for the group major:
   - AST 205 Principles of Astronomy; BIO 105 Biology
   - and the Human Species; BIO 224 Principles of Conservation; GES 108 Earth Science;
   - GES 324 Weather; MTH 105 College Algebra; MTH 107 Plane Trigonometry; PHY 221 Mechanics, Sound,
   - and Heat; PHY 222 Electricity and Light
   - Approved electives in biology, earth science, mathematics, and physics

With an earth science minor, take the following for the group major:
   - AST 205 Principles of Astronomy; BIO 105 Biology
   - and the Human Species; BIO 224 Principles of Conservation; CHM 121-122 General Chemistry I with lab;
   - MTH 105 College Algebra; MTH 107 Plane Trigonometry; PHY 221 Mechanics, Sound, and Heat;
   - PHY 222 Electricity and Light
   - Approved electives in biology, earth science, mathematics, and physics

With a mathematics minor, take the following for the group major:
   - AST 205 Principles of Astronomy; BIO 105 Biology
   - and the Human Species; BIO 224 Principles of Conservation; CHM 121-122 General Chemistry I with lab;
   - GES 108 Earth Science; GES 324 Weather;
   - MTH 105 College Algebra; MTH 107 Plane Trigonometry;
   - PHY 221 Mechanics, Sound, and Heat;
   - PHY 222 Electricity and Light
   - Approved electives in biology, chemistry, mathematics, and physics

With a physics minor, take the following for the group major:
   - AST 205 Principles of Astronomy; BIO 105 Biology
   - and the Human Species; BIO 224 Principles of Conservation; CHM 121-122 General Chemistry I with lab;
   - GES 108 Earth Science; GES 324 Weather;
   - MTH 105 College Algebra; MTH 107 Plane Trigonometry;
   - PHY 221 Mechanics, Sound, and Heat;
   - PHY 222 Electricity and Light
   - Approved electives in biology, chemistry, earth science, and physics

With a physics minor, take the following for the group major:
   - AST 205 Principles of Astronomy; BIO 105 Biology
   - and the Human Species; BIO 224 Principles of Conservation; CHM 121-122 General Chemistry I with lab;
   - GES 108 Earth Science; GES 324 Weather;
   - MTH 105 College Algebra; MTH 107 Plane Trigonometry;
   - PHY 221 Mechanics, Sound, and Heat;
   - PHY 222 Electricity and Light
   - Approved electives in biology, chemistry, earth science, and physics

Approved electives:
   - AST 204 Astronomical Investigations; BIO 205 Field Biology;
   - BIO 207 Elements of Ecology; BOT 221 General
Botany; ZOO 222 General Zoology; CHM 123-124 General Chemistry II with lab; CHM 270-271 Organic Chemistry with lab; CSC 137 Introduction to FORTRAN Programming; GES 114 National Parks and Monuments; GES 200 The Oceans; GES 309 Plate Tectonics; GLG 228 Mineralogy; GLG 229 Rocks of Michigan; MTH 120 Calculus I; MTH 121 Calculus II; MTH 122 Elementary Linear Algebra; MTH 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.

GEOPHYSICS MAJOR

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 persons for employment in the modern day geoscience area. This major also will prepare the student for graduate work in either geophysics, geology, or physics.

Required physics and geology courses ......... 58-60

A. Required physics courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 223 Mechanics, Sound, and Heat</td>
<td>5</td>
</tr>
<tr>
<td>PHY 224 Electricity and Light</td>
<td>5</td>
</tr>
<tr>
<td>PHY 229 Strength and Elasticity of Materials</td>
<td>3</td>
</tr>
<tr>
<td>PHY 330 Intermediate Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 350 Electricity and Magnetism I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 481 Mathematical Physics</td>
<td>3</td>
</tr>
<tr>
<td>GLG 160 Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GLG 228 Mineralogy</td>
<td>3</td>
</tr>
<tr>
<td>GLG 161 Historical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GLG 255 Field Geology I</td>
<td>2</td>
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<tr>
<td>GES 309 Plate Tectonics</td>
<td>3</td>
</tr>
<tr>
<td>GLG 326 Structural Geology</td>
<td>3</td>
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<tr>
<td>GLG 329 Petrology</td>
<td>3</td>
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<tr>
<td>GLG 330 Sedimentation and Stratigraphy</td>
<td>4</td>
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<tr>
<td>GLG 356 Field Geology II</td>
<td>3</td>
</tr>
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</table>

Select two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 370 Introduction to Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 436 Vibration and Sound</td>
<td>3</td>
</tr>
<tr>
<td>PHY 452 Electrical Measurements</td>
<td>4</td>
</tr>
<tr>
<td>PHY 456 Electronics for Scientists</td>
<td>4</td>
</tr>
<tr>
<td>PHY 485 Fluid Dynamics</td>
<td>3</td>
</tr>
</tbody>
</table>

B. Required mathematics courses (these courses may be used on a minor in mathematics) .... 21

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 120-121 Calculus I-II</td>
<td>8</td>
</tr>
<tr>
<td>MTH 122 Elementary Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>CSC 237 Computer Programming and Numeric Methods</td>
<td>3</td>
</tr>
<tr>
<td>MTH 223 Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MTH 325 Differential Equations</td>
<td>3</td>
</tr>
</tbody>
</table>

C. Required chemistry courses (these courses may be used on a minor in chemistry) .... 8

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 121-124 General Chemistry I-II with labs</td>
<td>8</td>
</tr>
</tbody>
</table>

PHYSICS RESEARCH MAJOR

The physics research major provides the necessary background for those planning to become professional physicists. The requirements listed below ensure adequate depth and breadth of subject matter in both theoretical and experimental physics and in mathematics. Students successfully completing this major are prepared to enter technical positions in government or industrial research or to undertake graduate study in physics. Further work on the graduate level is highly recommended.

MAJOR IN PHYSICS RESEARCH (ALL REQUIRED COURSES) .... 70

1. Total physics and astronomy courses .... 49

A. Required physics courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 223 Mechanics, Sound, and Heat</td>
<td>5</td>
</tr>
<tr>
<td>PHY 224 Electricity and Light</td>
<td>5</td>
</tr>
<tr>
<td>PHY 330 Intermediate Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 350 Electricity and Magnetism I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 360 Heat and Thermodynamics or PHY 462 Kinetic Theory and Statistical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 370 Introduction to Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 431 Intermediate Mechanics II</td>
<td>3</td>
</tr>
<tr>
<td>PHY 450 Electricity and Magnetism II</td>
<td>4</td>
</tr>
<tr>
<td>PHY 475 Introduction to Quantum Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 481 Mathematical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 417 Undergraduate Research Laboratory or PHY 490 Special Problems (Honors)</td>
<td>2</td>
</tr>
<tr>
<td>*A student changing to a physics major after completing PHY 221 Mechanics, Sound, and Heat and PHY 222 Electricity and Light may request substitution for PHY 223 Mechanics, Sound, and Heat and PHY 224 Electricity and Light. The total number of hours is not reduced by this substitution.</td>
<td></td>
</tr>
</tbody>
</table>

B. Restricted electives .... 3-12

Choose three of the following laboratory courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 332 Mechanics Laboratory, PHY 372 Modern Physics Laboratory, PHY 442 Optics Laboratory, PHY 456 Electronics for Scientists, and PHY 458 Microcomputer and Digital Electronics, PHY 471 Nuclear Physics</td>
<td>3-12</td>
</tr>
</tbody>
</table>

C. 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.

2. Additional required courses (these courses may be used on a minor in mathematics) .... 21

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 120-121 Calculus I-II</td>
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<tr>
<td>MTH 122 Elementary Linear Algebra</td>
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<td>4</td>
</tr>
<tr>
<td>MTH 325 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>CSC 237 Computer Programming and Numeric Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

PHYSICS MAJOR

This major is provided for students who desire a general cultural education with an emphasis on physics, who are preparing for work in another field such as pre-medicine or pre-law or who are interested in combining physics with an allied field such as biology, chemistry, or geology or with the field of business.

MAJOR IN PHYSICS .... 50

1. Total physics and astronomy courses .... 32

A. Required physics courses .... 20

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 223 Mechanics, Sound, and Heat</td>
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<tr>
<td>PHY 330 Intermediate Mechanics I</td>
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</tr>
<tr>
<td>PHY 350 Electricity and Magnetism I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 370 Introduction to Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>*A student changing to a physics major after completing PHY 221 Mechanics, Sound, and Heat and PHY 222 Electricity and Light may request substitution for PHY 223 Mechanics, Sound, and Heat and PHY 224 Electricity and Light. The total number of hours is not reduced by this substitution.</td>
<td></td>
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</table>

B. Restricted electives .... 3-12

Choose three of the following laboratory courses:

<table>
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<th>Course</th>
<th>Sem hours</th>
</tr>
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<tr>
<td>PHY 332 Mechanics Laboratory, PHY 372 Modern Physics Laboratory, PHY 442 Optics Laboratory, PHY 456 Electronics for Scientists, and PHY 458 Microcomputer and Digital Electronics, PHY 471 Nuclear Physics</td>
<td>3-12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 370 Introduction to Modern Physics</td>
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</tr>
<tr>
<td>PHY 475 Introduction to Quantum Mechanics</td>
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</tr>
<tr>
<td>PHY 481 Mathematical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 417 Undergraduate Research Laboratory or PHY 490 Special Problems (Honors)</td>
<td>2</td>
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<tbody>
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<tr>
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</tr>
</tbody>
</table>
PHY 332 Mechanics Laboratory, PHY 372 Modern Physics Laboratory, PHY 442 Optics Laboratory, PHY 456 Electronics for Scientists, PHY 458 Microcomputer and Digital Electronics, PHY 471 Nuclear Physics

C. 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.

2. Additional required courses (these courses may be used on a minor in mathematics) .................. 18
MTH 120-121 Calculus I-II ............................................. 8
MTH 122 Elementary Linear Algebra ............................. 3
MTH 223 Multivariable Calculus ............................... 4
CSC 237 Computer Programming and Numeric Methods ..... 3

ENGINEERING PHYSICS MAJOR

Students following this program will earn a Bachelor of Science degree with a major in physics and will have a strong background in engineering mechanics. Graduates will be well qualified to fill engineering-oriented positions.

Sem hours
Concentration In physics-engineering ................................ 77
1. Required physics courses ........................................... 28
PHY 223 Mechanics, Sound, and Heat ................................ 3
PHY 224 Electricity and Light ........................................ 3
PHY 360 Heat and Thermodynamics ................................ 3
PHY 370 Introduction to Modern Physics ....................... 3
PHY 372 Modern Physics Laboratory .............................. 1
PHY 440 Optics ................................................................ 1
PHY 442 Optics Laboratory ............................................. 1
PHY 456 Electronics for Scientists .................................. 1
PHY 458 Microcomputer and Digital Electronics .......... 3
2. 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 (with prior department approval)
3. 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
4. Required chemistry courses (these courses may be used on a minor in chemistry) .......................... 8
CHM 121-122 General Chemistry I with lab .................... 4
CHM 241-242 Materials Science with lab ...................... 4
5. Required mathematics courses (these courses may be used on a minor in mathematics) .................. 21
MTH 120-121 Calculus I-II ............................................. 8
MTH 122 Elementary Linear Algebra ............................. 3
MTH 223 Multivariable Calculus ............................... 4
CSC 237 Computer Programming and Numeric Methods ..... 3
MTH 325 Differential Equations .................................... 3

ACADEMIC MINORS

ASTRONOMY GROUP MINOR

This minor is designed to give the student a basic knowledge of astronomy and related fields. It is recommended that students wishing to undertake graduate work in astronomy complete the research major in physics with a minor in either mathematics or astronomy. Electives used to fulfill the astronomy minor cannot be used to complete any other major or minor.

Sem hours
Group minor in astronomy ............................................. 24
1. Required courses .................................................. 11
AST 204 Astronomical Investigations ................................ 1
AST 205 Principles of Astronomy .................................... 4
AST 315 Applied Astronomy .................................... 3
AST 370 Astronomical Concepts .................................... 3
2. Restricted electives .............................................. 13
Choose 13 credits from approved courses in physics, astronomy, mathematics, or chemistry in consultation with the advising coordinator for astronomy.

GROUP MINOR IN GENERAL SCIENCE

A group minor in general science must be combined with an academic major in biology, chemistry, earth science, mathematics, or physics.

Sem hours
Group minor in general science .................................... 24
With a major in biology, take the following courses:
AST 205 Principles of Astronomy, CHM 121-122
General Chemistry I with lab, GES 108 Earth Science, MTH 105 College Algebra, MTH 107 Plane Trigonometry, PHY 221 Mechanics, Sound, and Heat ................................................ 21
Approved electives in chemistry, earth science, mathematics, or physics ........................................... 3
With a major in chemistry, take the following courses:
AST 205 Principles of Astronomy, BIO 105 Biology and the Human Species, GES 108 Earth Science, MTH 105 College Algebra, MTH 107 Plane Trigonometry, PHY 221 Mechanics, Sound, and Heat ................................................ 21
Approved electives in biology, earth science, mathematics, or physics ........................................... 3
With a major in earth science, take the following courses:
AST 205 Principles of Astronomy, BIO 105 Biology and the Human Species, CHM 121-122 General Chemistry I with lab, MTH 105 College Algebra, MTH 107 Plane Trigonometry, PHY 221 Mechanics, Sound, and Heat ................................................ 21
Approved electives in biology, chemistry, mathematics, or physics ........................................... 3
With a major in mathematics, take the following courses:
AST 205 Principles of Astronomy, BIO 105 Biology and the Human Species, CHM 121-122 General Chemistry I with lab, GES 108 Earth Science, PHY 221 Mechanics, Sound, and Heat ................................................ 20
Approved electives in biology, chemistry, earth science, or physics ........................................... 4
With a major in physics, take the following courses:
AST 205 Principles of Astronomy, BIO 105 Biology and the Human Species, CHM 121-122 General Chemistry I with lab, GES 108 Earth Science, MTH 120 Calculus I ................................................ 20
Approved electives in biology, chemistry, earth science, or mathematics ........................................... 4
Approved electives: BIO 224 Principles of Conservation, CHM 123-124 General Chemistry II with lab, GES 324 Weather, CSC 137 Introduction to FORTRAN Programming, PHY 222 Electricity and Light.
This list is not complete; consult with the general science adviser for other possible courses.
PHYSICS MINOR

Minor in physics.............................................. 20

1. Required physics courses .................................. 13
   *PHY 223 Mechanics, Sound, and Heat ................. 5
   *PHY 224 Electricity and Light ......................... 5
   PHY 370 Introduction to Modern Physics ........... 3
   *A student changing to a physics minor after completing
      PHY 221 Mechanics, Sound, and Heat and/or PHY
      222 Electricity and Light may request substitution for
      PHY 223 and/or PHY 224. The total number of hours
      is not reduced by this substitution.

2. Restricted electives ...................................... 1-4
   Choose one of the following laboratory courses:
   PHY 372 Modern Physics Laboratory, PHY 442 Optics Laboratory, PH 452
   Electrical Measurements, PHY 456 Electronics for
   Scientists, PHY 458 Microcomputer and Digital Electronics,
   PHY 471 Nuclear Physics

3. 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.

4. 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.)
   MTH 120-121 Calculus I-II .................................. 8

TEACHING MAJORS

GENERAL SCIENCE MAJORS
WITH BIOLOGY MINOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of
other program requirements, qualifies the student for recommendation
for certification for the Michigan Department of Education
Secondary Provisional Certificate endorsed in general science, cer-
tification code “DA.” The certification tests covering this field are #16, “Science,” and #17, “Biology.”

Basic Studies:
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. CHM 121-122 General Chemistry I with lab (4)*
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. PHY 221 Mechanics, Sound, and Heat (4)*
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover.

Physical education, military science, or equivalent (2).

Credit hours in Basic Studies: .................................. 50

Teaching Major
See note "a" above for courses applicable to both Basic Stud-
ies and the major.

BOT 221 General Botany (4)
ZOO 222 General Zoology (4)
BIO 301 Genetics (3)

Nine hours of electives from biology, botany, microbiology,
or zoology.

Restrictions: May not include ESC 302, ESC 303, BIO
205, and BIO 403. No more than two hours may be taken
in any combination of BIO, BOT, or ZOO 497/498/499.
Special Problems/Topics courses or BIO/BOT/MIC/ZOO
387/487 Cooperative Education courses will not count.

MTH 105 College Algebra (3)
MTH 107 Plane Trigonometry (2)
GES 108 Earth Science (4)
AST 205 Principles of Astronomy (3)
PHY 222 Electricity and Light (4)
GES 324 Weather (3)

Eight hours of electives from among:
AST 204 Astronomical Investigations (1)
CHM 123, 124 General Chemistry II with lab (4)
CHM 270 Organic Chemistry (4)
CHM 271 Organic Chemistry Laboratory (1)
CSC 137 Introduction to FORTRAN Programming (3)
GES 114 National Parks and Monuments (2)
GES 200 The Oceans (3)
GES 309 Plate Tectonics (3)
GLG 228 Mineralogy (3)
GLG 229 Rocks of Michigan (2)
MTH 120 Calculus I (4)
MTH 121 Calculus II (4)
MTH 122 Elementary Linear Algebra (4)
MTH 223 Multivariable Calculus (4)
PHY 330 Intermediate Mechanics I (3)
PHY 370 Introduction to Modern Physics (3)
GES 372 Modern Physics Laboratory (1)
Others selected in consultation with general science adviser

Subtotal, Major and related areas: .................................. 48

Professional Studies
100 clock hours of approved pre-student teaching field experi-
ences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the
teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
BIO 403 Methods and Materials for Teaching Biology (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: .................................. 34

Total credit hours required: ........................................ 132

*Course required for and applicable to major.

WITH CHEMISTRY MINOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of
other program requirements, qualifies the student for recommendation
for certification for the Michigan Department of Education
Secondary Provisional Certificate endorsed in general science, cer-
tification code “DX,” and chemistry, certification code “DC.” The certification tests covering this field are #16, “Science,” and #18, “Chemistry.”
Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover

II-B-1. CHM 121-122 General Chemistry I with lab (4)*
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. PHY 221 Mechanics, Sound, and Heat (4)*
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover

IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: .............................................. 50

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.

CHM 123-124 General Chemistry II with lab (4)
CHM 281 Quantitative Analysis (4)

One of:

CHM 270-271 Organic Chemistry with lab (5)
CHM 371-373 Organic Chemistry with lab (8)

Three hours of electives chosen from courses numbered above 200 in chemistry

BIO 105 Biology and the Human Species (4)
MTH 105 College Algebra (3)
MTH 107 Plane Trigonometry (2)
GES 108 Earth Science (4)
AST 205 Principles of Astronomy (4)

PHY 222 Electricity and Light (4)

BIO 224 Principles of Conservation (4)

GEO 304 Principles of Geology (3)

Four hours of electives from among:

AST 204 Astronomical Investigations (1)

BIO 205 Field Biology (4)

BIO 207 Elements of Ecology (2)

BOT 221 General Botany (4)

CSC 137 Introduction to FORTRAN Programming (3)

GES 114 National Parks and Monuments (2)

GES 200 The Oceans (3)

GES 309 Plate Tectonics (3)

GLG 228 Mineralogy (3)

GLG 229 Rocks of Michigan (2)

MTH 120 Calculus I (4)

MTH 121 Calculus II (4)

MTH 122 Elementary Linear Algebra (3)

MTH 223 Multivariable Calculus (4)

PHY 330 Intermediate Mechanics I (3)

PHY 370 Introduction to Modern Physics (3)

PHY 372 Modern Physics Laboratory (1)

ZOO 222 General Zoology (4)

Others selected in consultation with general science advisor

Credit hours in Basic Studies: .............................................. 48

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)

EDT 300 Introduction to Computer Applications in Education (1)

SGN 300 Exceptional Children in the Regular Classroom (1)

EDP 322 Human Development and Learning (4)

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

CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
PHY 325 Methods of Teaching the Physical Sciences (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)

edm 345 Media for the Classroom Teacher (1)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: .................................. 34

Total credit hours required: ............................................. 132

Course required for and applicable to major.

WITH EARTH SCIENCE MINOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in general science, certification code "DX," and geology/earth science, certification code "DH." The certification tests covering this field are #16, "Science," and #20, "Geology/Earth Science."

Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover

II-B-1. CHM 121-122 General Chemistry I with lab (4)*
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. PHY 221 Mechanics, Sound, and Heat (4)*

III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover

IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: .............................................. 50

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.

BIO 105 Biology and the Human Species (4)

MTH 105 College Algebra (3)

MTH 107 Plane Trigonometry (2)

GES 108 Earth Science (4)

AST 205 Principles of Astronomy (4)

PHY 222 Electricity and Light (4)

BIO 224 Principles of Conservation (4)

GES 324 Weather (3)

Four hours of electives from among:

AST 204 Astronomical Investigations (1)

BIO 205 Field Biology (4)

BIO 207 Elements of Ecology (2)

BOT 221 General Botany (4)

CSC 137 Introduction to FORTRAN Programming (3)

GES 114 National Parks and Monuments (2)

GES 200 The Oceans (3)

GES 309 Plate Tectonics (3)

GLG 228 Mineralogy (3)

GLG 229 Rocks of Michigan (2)

MTH 120 Calculus I (4)

MTH 121 Calculus II (4)

MTH 122 Elementary Linear Algebra (3)

MTH 223 Multivariable Calculus (4)

PHY 330 Intermediate Mechanics I (3)

PHY 370 Introduction to Modern Physics (3)

PHY 372 Modern Physics Laboratory (1)

ZOO 222 General Zoology (4)

Others selected in consultation with general science adviser

Subtotal, Major and related areas: .................................... 48
BIO 205 Field Biology (4)
BIO 207 Elements of Ecology (2)
BOT 221 General Botany (4)
ZOO 222 General Zoology (4)
CHM 123, 124 General Chemistry II (4)
CHM 270 Organic Chemistry (4)
CHM 271 Organic Chemistry Laboratory (1)
CSC 137 Introduction to FORTRAN Programming (3)
MTH 120 Calculus I (4)
MTH 121 Calculus II (4)
MTH 122 Elementary Linear Algebra (3)
MTH 223 Multivariable Calculus (4)
PHY 330 Intermediate Mechanics I (3)
PHY 370 Introduction to Modern Physics (3)
PHY 372 Modern Physics Laboratory (1)

Others selected in consultation with general science adviser

Subtotal, Major and related areas: .............................................. 46

Professional Studies
100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
GES 347 Teaching Earth Science and Physical Geography (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: .............................................. 34

Total credit hours required: ......................................................... 130

Courses required for and applicable to major:

WITH MATHEMATICS MINOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in general science, certification code "DX," and mathematics, certification code "EX." The certification tests covering this field are #16, "Science," and #22, "Mathematics."

Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. MTH 120 Calculus I (4)*
I-B-5. One of:
   CSC 137 Introduction to FORTRAN Programming (3)
   CSC 138 Computer Science I (3)
   CSC 237 Computer Programming and Numeric Methods (3)

II-B-1. CHM 121-122 General Chemistry I with lab (4)*
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. PHY 221 Mechanics, Sound, and Heat (4)*
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover

IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ..................................................... 51

Teaching Major
See note "a" above for courses applicable to both Basic Studies and the major.

BIO 105 Biology and the Human Species (4)
GES 108 Earth Science (4)
MTH 121 Calculus II (4)
MTH 122 Elementary Linear Algebra (3)
AST 205 Principles of Astronomy (4)
PHY 222 Electricity and Light (4)
BIO 224 Principles of Conservation (4)
GES 324 Weather (3)

One of:
   MTH 211 Discrete Mathematics (3)
   MTH 270 Elementary Statistics (3)
   MTH 370 Probability and Statistics I (4)

One of:
   MTH 341 College Geometry (3)
   MTH 342 Elementary Space-Time Geometry (2)

One of:
   MTH 360 Statistical Methods (3)
   MTH 370 Probability and Statistics I (4)
   MTH 400 History and Development of Mathematics (3)
   MTH 411 Modern Algebra with Applications (3)
   MTH 416 Linear Algebra (3)
   MTH 418 Applied Linear Algebra (3)
   MTH 420 Introduction to Analysis (3)
   MTH 424 Introduction to Complex Variables (3)

Five hours from among:
   MTH 223 Multivariable Calculus (4)
   MTH 307 Elementary Number Theory (3)
   MTH 319 Mathematical Modeling (3)
   MTH 325 Differential Equations (3)
   MTH 341 College Geometry (3)
   MTH 342 Elementary Space-Time Geometry (2)

Five hours of electives from among:
   AST 204 Astronomical Investigations (1)
   BIO 205 Field Biology (4)
   BIO 207 Elements of Ecology (2)
   BOT 221 General Botany (4)
   ZOO 222 General Zoology (4)
   CHM 123, 124 General Chemistry II (4)
   CHM 270 Organic Chemistry (4)
   CHM 271 Organic Chemistry Laboratory (1)
   CSC 137 Introduction to FORTRAN Programming (3)
   GES 114 National Parks and Monuments (2)
   GES 200 The Oceans (3)
   GES 309 Plate Tectonics (3)
   GLG 228 Mineralogy (3)
   GLG 229 Rocks of Michigan (2)
   PHY 330 Intermediate Mechanics I (3)
   PHY 370 Introduction to Modern Physics (3)
   PHY 372 Modern Physics Laboratory (1)

Subtotal, Major and related areas: ............................................. 45

Professional Studies
100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)
The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
MTH 306 Teaching of High School Mathematics (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: .........................34
Total credit hours required: ........................................34

*Course required for and applicable to major.

**WITH PHYSICS MINOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education. Secondary Provisional Certificate endorsed in general science, certification code "DX," and physics, certification code "DE." The certification tests covering this field are #16, "Science," and #19, "Physics."

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. MTH 120 Calculus I (4)*
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. CHM 121-122 General Chemistry I with lab (4)*
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. PHY 223 Mechanics, Sound, and Heat (5)*
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Credit hours in Basic Studies: ........................................52

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.
BIO 105 Biology and the Human Species (4)
GES 108 Earth Science (4)
GES 242 Weather (3)
MTH 121 Calculus II (4)
AST 205 Principles of Astronomy (4)
BIO 224 Principles of Conservation (4)
PHY 224 Electricity and Light (5)
PHY 370 Introduction to Modern Physics (3)

One of:
PHY 332 Mechanics Laboratory (1)
PHY 372 Modern Physics Laboratory (1)
PHY 442 Optics Laboratory (1)
PHY 452 Electrical Measurements (4)
PHY 456 Electronics for Scientists (4)
PHY 471 Nuclear Physics (4)
Three to six hours of electives in physics (300 and above, no astronomy) to complete the minor
Five hours of electives from among:
BIO 205 Field Biology (4)

BIO 207 Elements of Ecology (2)
BOT 221 General Botany (4)
CHM 123, 124 General Chemistry II (4)
CHM 270 Organic Chemistry (4)
CHM 271 Organic Chemistry Laboratory (1)
CSC 137 Introduction to FORTRAN Programming (3)
GES 114 National Parks and Monuments (2)
GES 200 The Oceans (3)
GES 309 Plate Tectonics (3)
GLG 228 Mineralogy (3)
GLG 229 Rocks of Michigan (2)
MTH 122 Elementary Linear Algebra (3)
MTH 223 Multivariable Calculus (4)
ZOO 222 General Zoology (4)

Subtotal, Major and minor: ........................................43

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
PHY 325 Methods of Teaching the Physical Sciences (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: .........................34
Total credit hours required: ........................................129

*Course required for and applicable to major.

**PHYSICS MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in physics, certification code "DE," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the National Science Teachers Association. The certification test covering this field is #19, "Physics."

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. MTH 120 Calculus I (4)*
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. CHM 121-122 General Chemistry I with lab (4)*
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
II-B-4. Basic Studies requirement. See inside back cover

Credit hours in Basic Studies: ........................................52

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.
BIO 105 Biology and the Human Species (4)
GES 108 Earth Science (4)
GES 324 Weather (3)
MTH 121 Calculus II (4)
AST 205 Principles of Astronomy (4)
BIO 224 Principles of Conservation (4)
PHY 224 Electricity and Light (5)
PHY 370 Introduction to Modern Physics (3)

One of:
PHY 332 Mechanics Laboratory (1)
PHY 372 Modern Physics Laboratory (1)
PHY 442 Optics Laboratory (1)
PHY 452 Electrical Measurements (4)
PHY 456 Electronics for Scientists (4)
PHY 471 Nuclear Physics (4)
Three to six hours of electives in physics (300 and above, no astronomy) to complete the minor
Five hours of electives from among:
BIO 205 Field Biology (4)

BIO 207 Elements of Ecology (2)
BOT 221 General Botany (4)
CHM 123, 124 General Chemistry II (4)
CHM 270 Organic Chemistry (4)
CHM 271 Organic Chemistry Laboratory (1)
CSC 137 Introduction to FORTRAN Programming (3)
GES 114 National Parks and Monuments (2)
GES 200 The Oceans (3)
GES 309 Plate Tectonics (3)
GLG 228 Mineralogy (3)
GLG 229 Rocks of Michigan (2)
MTH 122 Elementary Linear Algebra (3)
MTH 223 Multivariable Calculus (4)
ZOO 222 General Zoology (4)

Subtotal, Major and minor: ........................................43

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
PHY 325 Methods of Teaching the Physical Sciences (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: .........................34
Total credit hours required: ........................................129

*Course required for and applicable to major.
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ........................................... 48

Teaching Major

AST 204 Astronomical Investigation (1)
AST 205 Principles of Astronomy (4)
MTH 121 Calculus II (4)
MTH 122 Elementary Linear Algebra (3)
MTH 223 Multivariable Calculus (4)
PHY 223 Mechanics, Sound, and Heat (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 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)

Minor

A minor from the approved list (see p. 230, mathematics highly recommended)

Subtotal, Major and minor: ........................................... 57

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
PHY 325 Methods of Teaching the Physical Sciences (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies with 20-hour minor: .................. 34

Total credit hours required: ........................................... 143

*Prerequisite for another course in program.

TEACHING MINORS

ASTRONOMY MINOR
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY

Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in astronomy, certification code "DO." The certification test covering this field is #21, "Astronomy."

*AST 204 Astronomical Investigations (1)
AST 205 Principles of Astronomy (4)
AST 315 Applied Astronomy (3)
AST 370 Astronomical Concepts (3)
13 credits from approved courses in physics, astronomy, mathematics, or chemistry in consultation with the advising coordinator for astronomy.

Electives used to fulfill the astronomy minor cannot be used to complete any other major or minor.

24 hours (including hours satisfied in Basic Studies)

*AST 204 may be satisfied in Basic Studies in some programs.

GENERAL SCIENCE MINOR (AVAILABLE ONLY TO MAJORS IN ONE OF THE SCIENCES)
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY

Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code "DX." The certification test covering this field is #16, "Science."

With a major in biology, take the following courses:
AST 205 Principles of Astronomy (4)
*CHM 121 General Chemistry I (3)
*CHM 122 General Chemistry I Lab (1)
GES 108 Earth Science (4)
MTH 105 College Algebra (3)
MTH 107 Plane Trigonometry (2)
PHY 221 Mechanics, Sound, and Heat (4)

3 hours from:
#CHM 123 General Chemistry II (3)
#CHM 124 General Chemistry II Lab (1)
GES 324 Weather (3)
**CSC 137 Introduction to FORTRAN Programming (3)
#PHY 222 Electricity and Light (4)

Others as approved by general science adviser

24 hours (including hours satisfied in Basic Studies)

With a major in chemistry, take the following courses:
AST 205 Principles of Astronomy (4)
BIO 105 Biology and the Human Species (4)
GES 108 Earth Science (4)
MTH 105 College Algebra (3)
MTH 107 Plane Trigonometry (2)
PHY 221 Mechanics, Sound, and Heat (4)

3 hours from:
BIO 224 Principles of Conservation (4)
GES 324 Weather (3)
**CSC 137 Introduction to FORTRAN Programming (3)
#PHY 222 Electricity and Light (4)

Others as approved by general science adviser

24 hours (including hours satisfied in Basic Studies)

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:
PHYSICS MINOR
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in physics, certification code "DE." The certification test covering this field is #19, "Physics."

*MTH 120 Calculus I (4)

**MTH 120-121 Calculus I-II (8)
(Math requirement to meet physics prerequisites)

PHY 221 Mechanics, Sound, and Heat (5)

PHY 222 Electricity and Light (5)

A student changing to a physics minor after completing PHY 221 and/or PHY 222 may request substitution for PHY 223 and/or PHY 224. The total number of hours is not reduced by this substitution.

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 442 Optics Laboratory (1)
(Pre- or coreq: PHY 440)

PHY 452 Electromagnetic Measurements

PHY 456 Electronics for Scientists

PHY 458 Microcomputer and Digital Electronics

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.

20 hours (including hours satisfied in Basic Studies)

** Could be satisfied in Basic Studies.

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 to students pursuing any curriculum for elementary teachers.

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 115 Physics in the Modern Home. 4 hrs
A course for non-science majors including the areas of mechanics, heat, sound, electricity, light, and modern physics with special emphasis on application in the environment of the home. Three lecture hours and two lab hours per week. Does not count on a physics major or minor.

PHY 140 Light, Color, and Photography for Artists and Others. 4 hrs
A course for non-scientists who wish to put their experience with optics on a scientific foundation. Based on general physical principles; emphasizes optical phenomena rather than the mathematical treatment of the phenomena. Optical instruments, the eye, color, photography, lasers, and holography. Three lecture hours and one two-hour laboratory per week. Does not count on a physics major or minor.

PHY 177/178/179 Special Topics. 1/2/3 hrs
This special topics course will be used to teach some 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 210 Musical Acoustics. 4 hrs
For students with a major interest in music. The physical bases of sound production, transmission, and reception. Application to topics such as intervals, temperament, acoustics of rooms, and tone production in the various types of musical instruments. Does not count on a physics major or minor.

PHY 221 Elementary Physical Science. 3 hrs
Designed particularly for teachers in elementary science. An elementary study of common machines, weather, matter, energy, heat, sound, light, magnetism, and electricity. 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 on a physics major or minor.

PHY 226 Science of High Fidelity. 3 hrs
Scientific base of high-fidelity equipment for the home and studio. Lecture-demonstrations cover components and fundamental physics. Laboratory experiences involve basic physics and testing of modern equipment.

PHY 227 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 221. The laws of mechanics, sound, and heat with more emphasis on applications and
somewhat less on problems. Laboratory: two consecutive hours, one day per week.

**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.

**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.

**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.

**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.

**PHY 256 Introduction to Electronics.** 3 hrs
An introduction to electronic circuits and electronics devices for medical technology students and others desiring familiarization with electronics. Two lecture hours and one three-hour laboratory period per week. Does not apply on physics majors or minors.

**PHY 277/278/279 Special Topics.** 1/2/3 hrs
This special topics course will be used to teach some 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.

**PHY 296 Science In Science Fiction.** 3 hrs
Current science fiction in paperback edition serves as a springboard for a wide-ranging study of the physical sciences. Does not count on a physics major or minor.

**PHY 297/298/299 Independent Study.** 1/2/3 hrs
An intensive study of a problem or group of problems under the direction of a department faculty member.

**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-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 on physics major or minors.

**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.

**PHY 332 Mechanics Laboratory.** 1 hr
A laboratory course providing experimental studies in intermediate mechanics. Three hours of laboratory per week.

**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.

**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.

**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.

**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.

**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.

**PHY 387 Cooperative Education.** 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) alternated with full-time attendance at the University. Use on physics major or minor subject to department permission. Offered on a graded credit/no credit basis.

**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 permi-

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 em-
phasis 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 permi-

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, MTH 223.

PHY 433 Robot Motions. 3 hrs
This course provides an introduction to the kinematics, dynamics,
and trajectory control of robot manipulators.
Prereq: PHY 330.

PHY 436 Vibration and Sound. 3 hrs
Detailed studies of vibration and wave motion with specific empha-
thesis on acoustic waves in air and other media. Reflection, refraction,
and interference of sound; vibrating strings and air columns; electro-
aoustic transducers; architectural acoustics.
Prereq: PHY 221/223 and PHY 222/224; MTH 223.

PHY 440 Optics. 3 hrs
An intermediate course dealing with fundamentals of geometrical
and physical optics. Reflection, refraction, lenses and optical instru-
ments, spectrosopes and spectra, interference, diffraction and po-
larization.
Prereq: PHY 221/223 and PHY 222/224; MTH 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. 4 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, polar-
ization, wave propagation in dielectrics and conductors, dispersion,
Fresnel's equations, guided waves, dipoleraidation, Lienard-
Wiechert potentials, and radiation theory.
Prereq: PHY 350; MTH 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
galvonometers, Wheatstone bridges of various forms, potentiom-
eters and standard cells, vacuum tubes, magnetic measurements and
methods of measuring capacitance and inductance. Laboratory:
four consecutive hours, one day per week.
Prereq: PHY 221/223 and PHY 222/224.

PHY 456 Electronics for Scientists. 4 hrs
Theory and application of passive and semiconductor circuit ele-
ments. Analog and digital circuit analysis and design problems.
Lecture: three hours per week. Laboratory: three hours per week.
Prereq: PHY 222/224 and MTH 121.

PHY 458 Microcomputer and Digital Electronics. 4 hrs
Physical and logical structure of microcomputer systems. Interface
techniques and applications to measurements. Basic digital elec-
tronics used in microcomputers: logic gates, memories, and inter-
face circuits. Laboratory: three consecutive hours, one day per
week.
Prereq: PHY 456 or department permission.

PHY 462 Kinetic Theory and Statistical Mechanics. 3 hrs
An introduction to the kinetic theory of gases and statistical mechan-
ics. For students concentrating in physics and those contemplating
advanced study in related fields of science and engineering. Max-
well-Boltzman distribution law, entropy and probability, transport
phenomena, quantum statistics, Bose-Einstein and Fermi-Dirac sta-
tistics, the connection between statistical mechanics and thermody-
namics, the equation of state, the elementary electron theory of
metals, and statistical methods in nuclear physics.
Prereq: PHY 224, MTH 223.

PHY 463 Finite Element Analysis. 3 hrs
An introduction to the concepts and methods of finite element
analysis. Finite element computer programs are used in this course
to analyze stresses in materials and to solve problems in acoustics,
heat flow, and electricity and magnetism.
Prereq: PHY 330, CSC 137 or CSC 237 or IS 215.

PHY 471 Nuclear Physics. 4 hrs
Radioactivity, scintillation counters, cloud chambers, particle accel-
errators, transmutation of the elements, waves and particles, fission,
fusion, stellar energies, nuclear reactors, cosmic rays, nuclear forces.
Laboratory: two consecutive hours, one day per week.
Prereq: PHY 370 and MTH 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 Schroedinger and Heisenberg equa-
tions to elementary systems, Pauli's theory of electron spin.
Prereq: PHY 370, MTH 121.

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 appli-
cations drawn from the field of physics. Vectors, matrices, tensors,
partial differential equations, contour integration, calculus of varia-
tions, integral equations and transforms, eigen-value functions,
perturbation and group theory, special functions.
Prereq: MTH 325 and 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. 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) alternated with full-time attendance at the University. Use on 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 semester 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 semester hours of physics and department permission.

PHY 497/498/499 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.

ASTRONOMY COURSES

AST 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.

AST 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 scheduled a few evenings each semester. AST 204 may be taken concurrently with this course. Cannot be applied toward a physics major or minor.

AST 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: AST 203 or AST 205.

AST 205 Principles of Astronomy. 4 hrs
An astronomy course for students desiring a comprehensive introduction to astronomy. Topics discussed in AST 203 are covered in more detail and additional topics are introduced. Especially recommended for science students. AST 204 may be taken concurrently. Not open to students with credit in AST 203. May count on the 30-hour physics major.

AST 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.
Graduate study in the Political Science department leads to a Master of Public Administration degree or an interdisciplinary Master of Arts in social science with a concentration in political science. The MPA and MA programs are described in the Graduate Catalog.

ACADEMIC MAJORS

POLITICAL SCIENCE MAJOR

Students majoring in political science are expected to complete PLS 112 American Government or PLS 113 American Government Honors prior to beginning the required core courses and to complete the required core courses within their first 18 hours in the major. At least four courses in the major numbered 300 or above must be completed at Eastern Michigan University. Students must maintain at least a “C” average in the major. A maximum of three semester hours of independent study or internship/cooperative education courses may be applied to the 30 semester hours required for the major. Neither the independent study or internship/cooperative education course nor PLS 470 meets the group distribution requirements specified below, but both may be taken as free political science electives.

Sem hours

1. Required core courses ........................................ 9
   Choose one: ................................................... 3
   PLS 210 Introduction to Political Analysis (3)
   PLS 310 Methods of Political Research (3)
   Choose two: .................................................. 6
   PLS 211 Introduction to Comparative Government (3)
   PLS 212 Introduction to International Politics (3)
   PLS 213 Introduction to Political Thought (3)

2. 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
   PLS 202 State and Local Government (3)
   PLS 216 Municipal Government (3)
   PLS 270 Public Administration (3)
   PLS 301 The American Legal System (3)
   PLS 312 American Constitutional Law I (3)
   PLS 313 American Constitutional Law II (3)
   PLS 330 Urban Politics (3)
   PLS 332 Intergovernmental Relations and Federalism (3)
   PLS 335 Labor in American Politics (3)
   PLS 352 Politics of Government Budgeting (3)
   PLS 365 Women and Politics (3)
   PLS 380 The American Presidency (3)
   PLS 381 Public Policy Analysis (3)
   PLS 385 Judicial Process and Behavior (3)
   Group II—Comparative politics and international relations
   PLS 221 Vietnam (3)
   PLS 222 War and Peace in the Nuclear Age (3)
   PLS 311 Third World Politics (3)
   PLS 327 American Foreign Policy Process (3)
   PLS 341 International Law (3)
   PLS 342 International Organizations (3)
   PLS 354 Government and Politics of Canada (3)
   PLS 361 Soviet Succession Politics (3)
   PLS 367 Contemporary Political Systems of Latin America (3)
   PLS 371 Government and Politics of the Middle East (3)
   PLS 372 Government and Politics of Sub-Saharan Africa (3)
   PLS 374 Asian Political Systems (3)
   PLS 462 Soviet Foreign Relations (3)
   PLS 467 Advanced International Relations (3)
**CURRICULUM FOR PUBLIC SAFETY ADMINISTRATION**

The Public Safety Administration Program is an interdisciplinary program involving coursework 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. But 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 concentration consisting of three areas: public safety administration, 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 degree in public administration.

Transfer students from associate degree programs in related fields can matriculate into the program (students transferring from another college must complete all basic studies coursework as required by the University for the bachelor's degree).

**Basic Studies**

I-B-1. ENG 121 English Composition (3)
I-B-2. CTA 124 Fundamentals of Speech (3)
I-B-3. One of the following:
   CTA 227 Interpersonal Communication (3)
   ENG 326 Research Writing (3)
   *CTA 374 Intercultural Communication (3)
I-B-4. SOC 250 Social Statistics I (3)
I-B-5. IDT 201 Microcomputer Applications in Technology (3)
II-B-1. One of the following:
   CHM 119 Fundamentals of Chemistry (4)
   PHY 221 Mechanics, Sound, and Heat (4)
II-B-2. PSY 101 General Psychology (3)
II-B-3. Basic Studies requirement. See inside back cover
II-B-4. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. SOC 105 Introductory Sociology (3)
III-B-4. SOC 202 Social Problems (3)
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

**Physical education, military science, or equivalent (2)**

**Public Administration Core**

1. Foundation Group .............................................. 15
   ANT 135 Introduction to Cultural Anthropology or SOC 214
   Racial and Cultural Minorities .................................. 3
   PLS 202 State and Local Government or PLS 216 Municipal
   Government or PLS 330 Urban Politics ...................... 3
   PLS 313 American Constitutional Law II or CRM 300
   Criminal Justice .............................................. 3
PUBLIC LAW AND GOVERNMENT MAJOR

Public law and government offers students a broad foundation in political science with a concentration in public law. It provides course work in constitutional law, civil liberties and civil rights, substantive and procedural criminal law, the law and the legal process, the courts, the judicial process, and judicial administration. Although the emphasis is on American public law, course work also is offered in international law and comparative legal systems. Careers accessible to students selecting this major include law, court administration, paralegal service, legislative service, other government service, opinion research, journalism, teaching, business, and elective public office. Some students enter graduate or professional schools, including law school. Students are expected to complete PLS 112 or PLS 113 American Government prior to beginning this major. At least four courses in the major numbered 300 or above must be completed at Eastern Michigan University. Students must maintain at least a "C" average in the major. A maximum of six semester hours of independent study or internship/cooperative education may be applied to the 36 semester hours required for the major.

Sem hours

Major in public law and government .................................................. 36

1. Required courses ..................................................................... 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 301 The American Legal System</td>
<td>3</td>
</tr>
<tr>
<td>PLS 312 American Constitutional Law I, PLS 313 American</td>
<td>6</td>
</tr>
<tr>
<td>PLS 412 Comparative Legal Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Restricted electives .................................................................. 9

Choose one course in each of the following three groups:

**Group I: American politics and administration**

- PLS 202 State and Local Government
- PLS 216 Municipal Government
- PLS 270 Public Administration
- PLS 330 Urban Politics
- PLS 332 Intergovernmental Relations and Federalism
- PLS 335 Labor in American Politics
- PLS 352 Politics of Government Budgeting
- PLS 358 Parties, Elections, and Interest Groups
- PLS 364 The Legislative Process
- PLS 365 Women and Politics
- PLS 380 The American Presidency
- PLS 381 Public Policy Analysis

**Group II: Comparative politics and international relations**

- PLS 211 Introduction to Comparative Government
- PLS 212 Introduction to International Politics
- PLS 221 Vietnam
- PLS 222 War and Peace in the Nuclear Age
- PLS 311 Third World Politics
- PLS 327 American Foreign Policy Process
- PLS 342 International Organizations
- PLS 354 Government and Politics of Canada
- PLS 361 Soviet Succession Politics
- PLS 367 Contemporary Political Systems of Latin America
- PLS 371 Government and Politics of the Middle East
- PLS 372 Government and Politics of Sub-Saharan Africa
- PLS 374 Asian Political Systems
- PLS 462 Soviet Foreign Relations
- PLS 467 Advanced International Relations

**Group III: Political theory and methods**

- PLS 210 Introduction to Political Analysis
- PLS 213 Introduction to Political Thought
- PLS 308 Political Violence and Revolution
- PLS 310 Methods of Political Research
- PLS 359 Public Opinion and Political Learning
- PLS 382 Politics and the 21st Century
- PLS 418 20th Century Political Theory
- PLS 420 Democracy and Power
- PLS 422 American Political Thought

3. Other electives ......................................................................... 12

Choose four courses from the following:

- PLS 312 American Constitutional Law I
- PLS 313 American Constitutional Law II
- PLS 341 International Law
- PLS 385 Judicial Process and Behavior
- PLS 387 Cooperative Education
- ECO 407 Economic Analysis and Law
- PLS 412 Comparative Legal Systems
- PLS 456 Criminal Law I
- PLS 465 United States Constitutional History
- PLS 480 Field Seminar in Political Science/Public Administration
- PLS 486 Internship
- PLS 487 Cooperative Education
- PLS 488/489 Internship
- PLS 497/498/499 Independent Study

4. Cognate electives ..................................................................... 6

Courses in a related content area selected with the approval of the adviser.

ACADEMIC MINORS

POLITICAL SCIENCE MINOR

Students must complete PLS 112 American Government or PLS 113 American Government Honors before beginning the course of study for the minor.

Sem hours

Minor in political science ................................................................. 21

1. Required core courses ............................................................... 6

Choose two courses from the following:

- PLS 210 Introduction to Political Analysis
- PLS 211 Introduction to Comparative Government
- PLS 212 Introduction to International Politics
- PLS 213 Introduction to Political Thought
- PLS 310 Methods of Political Research
2. Area of concentration .......................................................... 15
Choose five courses from two of the three areas of concentration (Groups I, II, and III) listed under the political science major

PUBLIC ADMINISTRATION MINOR

<table>
<thead>
<tr>
<th>Minor in public administration</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required course</td>
<td>3</td>
</tr>
<tr>
<td>PLS 270 Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>2. Restricted electives</td>
<td>12</td>
</tr>
<tr>
<td>Choose four of the following courses:</td>
<td></td>
</tr>
<tr>
<td>ACC 246 Accounting for Public Administrators</td>
<td></td>
</tr>
<tr>
<td>ECO 350 Government Finance</td>
<td></td>
</tr>
<tr>
<td>3. Electives</td>
<td>9</td>
</tr>
<tr>
<td>Choose three courses from the remaining required or elective courses in the public administration major. With permission of a public administration advisor, three semester hours of internship credit (PLS 480, 486, 488, or 489) or three semester hours of cooperative education credit (PLS 387 or 487) may be applied to the public administration minor.</td>
<td></td>
</tr>
</tbody>
</table>

PUBLIC LAW AND GOVERNMENT MINOR

Students must complete at Eastern Michigan University at least three courses in the public law and government minor numbered 300 or above. A maximum of four semester hours of independent study or internship/cooperative education courses may be applied to the 24 semester hours required for this minor.

<table>
<thead>
<tr>
<th>Minor in public law and government</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required courses</td>
<td>24</td>
</tr>
<tr>
<td>PLS 301 The American Legal System</td>
<td>3</td>
</tr>
<tr>
<td>Choose one course from the following:</td>
<td></td>
</tr>
<tr>
<td>PLS 312 American Constitutional Law I, PLS 313 American Constitutional Law II, PLS 412 Comparative Legal Systems</td>
<td></td>
</tr>
<tr>
<td>2. Restricted electives</td>
<td>6</td>
</tr>
<tr>
<td>Choose two courses from two of the three groups (I, II, and III) under restricted electives in the public law and government major</td>
<td></td>
</tr>
<tr>
<td>3. Other electives</td>
<td>12</td>
</tr>
<tr>
<td>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 advisor.</td>
<td></td>
</tr>
</tbody>
</table>

TEACHING MAJORS

POLITICAL SCIENCE MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in 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 science (“CX”). The certification test covering this field is #10, “Political Science.”

Basic Studies

| I-B-1. | ENG 121 English Composition (3) |
| I-B-2. | Basic Studies requirement. See inside back cover |
| I-B-3. | Basic Studies requirement. See inside back cover |
| I-B-4. | Basic Studies requirement. See inside back cover |
| I-B-5. | Basic Studies requirement. See inside back cover |
| II-B-1. | Basic Studies requirement. See inside back cover |
| II-B-2. | Basic Studies requirement. See inside back cover |
| II-B-3. | Basic Studies requirement. See inside back cover |
| III-B-1. | Basic Studies requirement. See inside back cover |
| III-B-2. | HIS 102 Western Civilization, 1648 to World War I (3) |
| III-B-3. | One of: |
| GEO 107 Introduction to Geography (3) |
| GEO 110 World Regions (3) |
| III-B-4. | HIS 103 Twentieth Century Civilization (3) |
| IV-B-1. | Basic Studies requirement. See inside back cover |
| IV-B-2. | Basic Studies requirement. See inside back cover |
| IV-B-3. | Basic Studies requirement. See inside back cover |
| IV-B-4. | Basic Studies requirement. See inside back cover |
| Physical education, military science, or equivalent (2) |

A course in economics, if not included in the minor (3)

Credit hours in Basic Studies: .........................................52

Teaching Major

See note “a” above for courses applicable to both Basic Studies and the major.

Choose one:

| PLS 210 Introduction to Political Analysis (3) |
| PLS 310 Methods of Political Research (3) |

Choose two:

| PLS 211 Introduction to Comparative Government (3) |
| PLS 212 Introduction to International Politics (3) |
| PLS 213 Introduction to Political Thought (3) |
| Choose three courses from one of the three groups listed below. If Group I is chosen, the three concentration courses must be in Subgroup A. |
| 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

| PLS 201 State and Local Government (3) |
| PLS 216 Municipal Government (3) |
| PLS 270 Public Administration (3) |
| PLS 301 The American Legal System (3) |
| PLS 312 American Constitutional Law I (3) |
| PLS 313 American Constitutional Law II (3) |
| PLS 330 Urban Politics (3) |
| PLS 332 Intergovernmental Relations and Federalism (3) |
| PLS 335 Labor in American Politics (3) |
| PLS 352 Politics of Government Budgeting (3) |
| PLS 365 Women and Politics (3) |
| PLS 380 The American Presidency (3) |
| PLS 381 Public Policy Analysis (3) |
| PLS 385 Judicial Process and Behavior (3) |

Group II—Comparative politics and international relations

| PLS 221 Vietnam (3) |
| PLS 222 War and Peace in the Nuclear Age (3) |
| PLS 311 Third World Politics (3) |
| PLS 327 American Foreign Policy Process (3) |
| PLS 341 International Law (3) |
| PLS 342 International Organizations (3) |
| PLS 354 Government and Politics of Canada (3) |
| PLS 361 Soviet Succession Politics (3) |
| PLS 367 Contemporary Political Systems of Latin America (3) |
POLITICAL SCIENCE MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in political science, certification code "CD." The certification test covering this field is #10, "Political Science."

Two of:

- PLS 210 Introduction to Political Analysis (3)
- PLS 211 Introduction to Comparative Government (3)
- PLS 212 Introduction to International Politics (3)
- PLS 213 Introduction to Political Thought (3)
- PLS 310 Methods of Political Research (3)

Choose five courses from two of the three areas of concentration (Groups I, II, and III) listed under the political science major

21 hours (including hours satisfied in Basic Studies)

PRE-PROFESSIONAL PROGRAM IN PRE-LAW

Most law schools require a bachelor's degree and evidence of potential for law school as measured by grade point average and the results of the Law School Admissions 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 pre-law 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 pre-law students to plan their own academic programs. Given the increasing competitiveness of admission to law school, it is doubly 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 pre-law students are political science, economics, history, and sociology. Other frequent choices include English language and literature, communications, psychology, philosophy, and business administration. Although fewer 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 pre-law advisers are advanced English composition, persuasive speech, logic, and accounting. Mathematics and science courses are frequently cited as helpful in developing needed analytical skills.

Pre-law 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

PLS 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 curriculums. Not open to those with credit in PLS 113.

PLS 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 curriculums. Not open to those with credit in PLS 112.

PLS 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 as long as different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.
Pre req: Department permission.

PLS 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. Satisfies the political science requirement of all curriculums.
Pre req: PLS 112/113, or department permission.

PLS 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.
Pre req: PLS 112/113.

PLS 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.
Pre req: PLS 112/113.

PLS 212 Introduction to International Politics. 3 hrs
The fundamentals of great power politics, the impact of efforts at international organization.
Pre req: PLS 112/113.

PLS 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.
Pre req: PLS 112/113.

PLS 216 Municipal Government. 3 hrs
A study of forms and functions of municipal government.

PLS 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 an aftermath will be included. The course will include the PBS videotapes of Vietnam: A History.
Pre req: PLS 112/113.

PLS 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 1943 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.
Pre req: PLS 112/113.

PLS 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.

PLS 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 as long as different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.

PLS 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.

PLS 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.

PLS 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.

PLS 310 Methods of Political Research. 3 hrs
Acquaints students with philosophic and methodological problems and analytic techniques in the study of politics.

PLS 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 socio-political conditions are investigated in order to determine how these forces influence public policy making.
Pre req: PLS 112/113 and PLS 212.

PLS 312 American Constitutional Law I. 3 hrs
PLS 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.

PLS 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.

PLS 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 330</td>
<td>Urban Politics</td>
<td>3 hrs</td>
<td>An examination of the urban political environment in the United States; structure, processes, power relationships, ethnic considerations, fiscal constraints, and selected specific policy areas are considered. Prereq: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 332</td>
<td>Intergovernmental Relations and Federalism</td>
<td>3 hrs</td>
<td>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: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 334</td>
<td>Personnel Administration in Government</td>
<td>3 hrs</td>
<td>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: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 335</td>
<td>Labor in American Politics</td>
<td>3 hrs</td>
<td>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: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 341</td>
<td>International Law</td>
<td>3 hrs</td>
<td>An introduction to the principles and practices of public international law. The origin and development, 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: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 342</td>
<td>International Organizations</td>
<td>3 hrs</td>
<td>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: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 354</td>
<td>Government and Politics of Canada</td>
<td>3 hrs</td>
<td>Analysis of the Canadian political system in terms of historical background; constitutional structure; legislative, executive, and judicial processes; political parties and pressure groups; public opinion and voting behavior; political problems and trends. Prereq: PLS 112/113.</td>
</tr>
<tr>
<td>PLS 358</td>
<td>Parties, Elections, and Interest Groups</td>
<td>3 hrs</td>
<td>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: PLS 112/113.</td>
</tr>
<tr>
<td>PLS 359</td>
<td>Public Opinion and Political Learning</td>
<td>3 hrs</td>
<td>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: PLS 112/113.</td>
</tr>
<tr>
<td>PLS 364</td>
<td>Legislative Process</td>
<td>3 hrs</td>
<td>A study of the agencies, procedures, and influences in the formation of public policy by Congress, state legislatures, and administrative agencies. Prereq: PLS 112/113.</td>
</tr>
<tr>
<td>PLS 365</td>
<td>Women and Politics</td>
<td>3 hrs</td>
<td>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 selected European and Asian political systems. Prereq: PLS 112/113.</td>
</tr>
<tr>
<td>PLS 367</td>
<td>Contemporary Political Systems of Latin America</td>
<td>3 hrs</td>
<td>A study of the governmental structure and the nature of political activity in selected Latin-American nations, with an emphasis on issues such as urbanization, military influence, students, and labor, and the development of political parties. Prereq: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 371</td>
<td>Government and Politics of the Middle East</td>
<td>3 hrs</td>
<td>The Middle East as a case study in the field of comparative politics, European colonial policies, nationalist movements, and politics of independent states. Prereq: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 374</td>
<td>Asian Political Systems</td>
<td>3 hrs</td>
<td>A study of the politics and government of China, Japan, the mainland Southeast Asian states, Indonesia, and India. Prereq: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 377/378/379</td>
<td>Special Topics.</td>
<td>1/2/3 hrs</td>
<td>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 as long as different topics are studied, but it may be taken only twice for credit toward a major or minor in political science. Prereq: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 380</td>
<td>The American Presidency</td>
<td>3 hrs</td>
<td>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: PLS 112/113/202.</td>
</tr>
<tr>
<td>PLS 381</td>
<td>Public Policy Analysis</td>
<td>3 hrs</td>
<td>An advanced course in public administration dealing with modern administrative techniques, budget analysis, the politics of resource allocation, and regulatory problems. Prereq: PLS 270.</td>
</tr>
<tr>
<td>PLS 382</td>
<td>Politics and the 21st Century</td>
<td>3 hrs</td>
<td>A study of the political and public policy directions of the future. Consideration will be given to world-wide political developments.</td>
</tr>
</tbody>
</table>
and alternative political futures as affected by accelerating socio-political and technological change.


PLS 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.


PLS 387 Cooperative Education. 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 (PLS 387 and PLS 487) alternated 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.

PLS 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 departmental permission.

PLS 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 selected foreign countries.


PLS 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: PLS 112/113.

PLS 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: PLS 210/213, or PHI 225.

PLS 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.


PLS 431 Theories of Public Organization. 3 hrs
An introduction to theories of organization as related to public bureaucracies in a democratic political context.

Prereq: PLS 270 or department permission.

PLS 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: PLS 270 and PLS 431, or department permission.

PLS 451 Seminar in Public Safety Administration. 3 hrs
A capstone seminar in the public safety administration concentration; integrates previous coursework in law, management, and politics by focusing on contemporary problems and issues in public safety operations, including attention to leadership, organizational conflict, and resource allocation/utilization; utilizes a case approach.

Prereq: Senior standing and department permission.

PLS 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: PLS 112/113.

PLS 462 Soviet Foreign Relations. 3 hrs
An analytical and historical examination of Soviet foreign policies since 1917—their sources, character, objectives, and periodization.


PLS 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: PLS 212 and PLS 327.

PLS 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.


PLS 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 as long as different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.


PLS 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.

PLS 486/488/489 Internship. 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.

PLS 487 Cooperative Education. 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 (PLS 387 and PLS 487) alternated 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. PLS 387. Departmental recommendation required.

PLS 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

Kenneth W. Rusiniak
Department Head
537 Mark Jefferson
487-1155

Professors: Barbara E. Brackney, Jeffrey Dansky, Dennis J. Delprato, Barry Fish, Monroe Friedman, Norman Gordon, V. Kay Hodges, Peter A. Holmes, Stuart A. Karabenick, John Knapp, Jerry O’Dell, James Roff, Kenneth W. Rusiniak, Alida S. Westman, Zakhour I. Youssef
Associate Professors: Marilyn K. Bonem, John L. McManus
Assistant Professors: James Todd, Silvia Von Kluge

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. 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 psychology office.

Advising coordinator: Kenneth W. Rusiniak

Graduate study leads to a master’s degree in psychology with programs in general psychology, clinical psychology, and clinical behavioral psychology. Also offered is the specialist’s degree in school psychology. These programs are described in the Graduate Catalog.

ACADEMIC MAJOR

PSYCHOLOGY MAJOR

The major in psychology is designed to provide a general and in-depth survey of the fields in the science of psychology and to prepare students to work with people in several career areas. Further study beyond the baccalaureate degree is required to enter professional career work.

Major in psychology ............................................................... 30

1. Required courses .................................................................................. 13-14
PSY 101/102 General Psychology .........................................................3/4

2. Restricted electives ..................................................................................... 12
Choose one course from each of the following groups:

Adjustment and personality
PSY 205 Quantitative Methods in Psychology ...........................................3
PSY 301 Introductory Experimental Psychology .........................................4
PSY 453 History and Systems of Psychology ...............................................3

3. Electives ........................................................................................................ 4-5
Choose four or five credits in consultation with advising coordinator.

ACADEMIC MINOR

PSYCHOLOGY MINOR

The minor provides students entering many career fields a fuller scientific understanding of human experience, behavior, needs, desires, and potentialities. The minor is flexible; within limits it may be designed to meet the needs of each student.

Sem hours
Minor in psychology .................................................................................. 20

1. Required courses ....................................................................................... 3-4
PSY 101/102 General Psychology ..............................................................3/4

2. Electives ........................................................................................................ 16-17
Choose 16-17 credits in consultation with advising coordinator.

TEACHING MAJOR

PSYCHOLOGY MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in psychology, certification code “CE,” and, depending on the minor selected, endorsement in economics (“CA”), geography (“CB”), history (“CC”), political science (“CD”), sociology (“CF”), or social science (“CX”). The certification test covering this field is #11, “Psychology.”

Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. HIS 102 Western Civilization, 1648 to World War I (3)
III-B-3. One of:
GEO 107 Introduction to Geography (3)
GEO 110 World Regions (3)
III-B-4. HIS 103 Twentieth Century Civilization (3)
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover
Physical education, military science, or equivalent (2)
A course in economics, if not included in the minor (3)
Credit hours in Basic Studies: ........................................... 52

Teaching Major
See note "a" above for courses applicable to both Basic Studies and the major.

PSY 205 Quantitative Methods in Psychology (3)
PSY 301 Introductory Experimental Psychology (3)
PSY 453 History and Systems of Psychology (3)
One of:
    PSY 360 Abnormal Psychology (3)
    PSY 451 Dynamics of Personality (3)
One of:
    PSY 357 Sensation and Perception (3)
    PSY 457 Physiological Psychology (3)
    PSY 458 Comparative Animal Behavior (3)
One of:
    PSY 304 Learning (3)
    PSY 356 Motivation (3)
One of:
    PSY 309 Social Psychology (3)
    PSY 321 Child Psychology (3)
Select 4-5 credits (enough to total 30 hours in psychology, including General Psychology), in consultation with an advising coordinator.

Minor
A minor in one of economics, geography, history, political science, sociology, or social science
Subtotal, Major and minor: ............................................ 97

Professional Studies
100 clock hours of approved pre-student teaching field experiences (0)
EDT 300 Introduction to Computer Applications in Education (1)
SGN 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)
The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
EDM 345 Media for the Classroom Teacher (1)
HIS 481 The Teaching of Social Studies (3)
EDU 492 Student Teaching (12)
Credit hours in Professional Studies: .................................. 34
Total credit hours required, with 20-hour minor: ............. 133

*Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.

TEACHING MINOR

PSYCHOLOGY MINOR
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in psychology, certification code "CE." The certification test covering this field is #11, "Psychology."

*One of:
    PSY 101 General Psychology (3)
    PSY 102 General Psychology (4)
Choose 16-17 credits in consultation with advising coordinator.
20 hours (including hours satisfied in Basic Studies)

*Satisfied in Basic Studies.

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 101/102 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 101/102.

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 101/102, and MTH 104 or equivalent.

PSY 207 Psychology of Adjustment. 3 hrs
Systematic presentation of issues, concepts, principles, and theories of human adjustment.
Prereq: PSY 101/102.

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 101/102.

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 101/102.

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 101/102.

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 101/102 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 selected 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 SOC 308.
Prereq: SOC 105 and PSY 101/102.

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 101/102.

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 101/102.

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 101/102.

PSY 330 The Psychology of Contemporary Issues. 3 hrs
The application of psychological principles and methodology to selected contemporary world problems such as arms control, disarmament, and cybernetics.
Prereq: PSY 101/102.

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 101/102 and sophomore standing.

PSY 350 Environmental Psychology. 3 hrs
The psychological effects of various environmental settings and configurations on human behavior. Selected qualities of architectural spaces, urban environments, and natural settings.
Prereq: PSY 101/102.

PSY 351 Industrial Psychology. 3 hrs
Applications of psychological methods and principles to industrial problems.
Prereq: PSY 101/102, and junior or senior standing.

PSY 352 Psychological Testing and Evaluation. 3 hrs
Principles and theories of psychological testing. Introduction to evaluation, administration, and interpretation of group and individual tests used in diagnosis and prognosis.
Prereq: PSY 101/102, and junior or senior standing.

PSY 356 Motivation. 3 hrs
Review and analysis of research and theory on the determinants of the direction, persistence, and vigor of behavior.
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 standing, PSY 205 or equivalent.

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 101/102, and junior or senior 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
Prereq: PSY 101/102.

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 101/102.

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 101/102.

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 101/102 and department permission.

PSY 387 Cooperative Education. 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) alternated 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. Ap-
approximately three hours of field work each week and completion of
a journal of goals and experiences.
Prereq: PSY 101/102, concurrent enrollment in a three-hour psy-
chology class, and/or department permission.

PSY 397/398/399 Individual Reading In Psychology. 1/2/3 hrs
Supervised reading on psychological problems.
Prereq: PSY 101/102, and prior department approval of a planned
reading program.

PSY 401 Honors Seminar: Contemporary Issues and Methods
In Psychology. 3 hrs
Prepares the honors student to design and develop an original senior
honors thesis in current issues, methods, and research opportunities
in selected specialty areas of psychology.
Prereq: PSY 301.

PSY 445 Consumer Psychology. 2 hrs
A survey of psychological principles, theories, and methodology
relating to consumer behavior.
Prereq: PSY 101/102.

PSY 448 Seminar In Psychology. 2 hrs
A synthesis of various approaches to the study of psychology.
Development, presentation, and critical appraisal of individual stu-
dent projects. Open to seniors majoring or minorin in psychology.

PSY 450 Psychology of Individual Differences. 2 hrs
Analysis of research on variability between individuals and groups
regarding intelligence, aptitudes, achievement, motivation, perception,
and attitudes.
Prereq: PSY 101/102.

PSY 451 Dynamics of Personality. 3 hrs
Physiological, psychological, and cultural determinants of human
personality; analysis of selected theories of human personality.
Prereq: Six hours in psychology and junior or senior standing.

PSY 453 History and Systems of Psychology. 3 hrs
Historical development of modern psychological theories; contem-
porary systems, including functionalism, behaviorism, phenom-
enology, psychoanalysis, and dynamic psychologies.
Prereq: Twelve 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: BIO 105 or ZOO 222.

PSY 458 Comparative Animal Behavior. 3 hrs
Modern solutions to the innate versus learned behavior contro-
versy; 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, presenta-
tion of psychology, family, violence, and sexuality in films.
Prereq: Junior standing and/or two courses in psychology.

PSY 471/478/479 Special Topics. 1/2/3 hrs
An examination of topics in psychology not covered in other
department offerings. May be elected more than once as long as
different topics are studied.
Prereq: PSY 101/102, and department permission.

PSY 487 Cooperative Education. 3 hrs
Four months of full-time employment at an individual employer
chosen to provide practical experience in the student's major field.
SOCIETY, ANTHROPOLOGY, AND CRIMINOLOGY

Gregg Barak
Department Head
712 Pray-Harrold
487-0012

Associate Professors: E. L. Cerroni-Long, Christina J. Johns, Mansoor Moaddel
Assistant Professors: Anthony Adams, Nancy N. Thalhofer

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 elementary education
- Sociology for secondary, K-12, and special education-secondary

Interdisciplinary minors in Anthropology/Sociology:
- Health and illness studies
- Socio-cultural 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: Nancy Thalhofer
Graduate criminology and criminal justice: Christina Johns
Graduate sociology: Patricia Ryan

Graduate study leads to the master's degree in sociology or criminology and criminal justice. The MA degree is described in the Graduate Catalog.

ACADEMIC MAJORS

CURRICULUM IN CRIMINOLOGY AND CRIMINAL JUSTICE

The Criminology and Criminal Justice curriculum provides students with a multi-disciplinary understanding of crime and justice within the framework of broader social processes. This curriculum is a three-tiered structure comprising basic studies, a core curriculum, and selected concentrations. The typical student will move from basic studies 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 basic studies 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 Criminology—a multi-disciplinary perspective on the nature, extent, and causes of crime. Criminology (CRM 301) should be the first core course taken by the typical student, followed by Criminal Justice (CRM 300). 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. Specific courses marked with an asterisk (*) also satisfy basic studies requirements—the specific requirement is enclosed within brackets [...]. You may need to refer to pp. 26-30 in this catalog for exceptions to the general basic studies requirements.

Core requirements ............................................................. 48-49

- PSY 101/102 General Psychology [Area II.2.] ............... 3-4
- PLS 112 American Government [Area III.1.] or PLS 202 State and Local Government .............................................. 3
- SOC 105 Introductory Sociology [Area III.3.] ................. 3
- SOC 202 Social Problems [Area III.4b.] ............................ 3
- CRM 301 Criminal Justice .............................................. 3
- CRM 300 Criminal Justice .............................................. 3
- CRM 354 Juvenile Delinquency ........................................ 3
- CRM 370 Corporate and White Collar Crime .................... 3
- SOC/CRM 412 Law and Society ...................................... 3
- CRM 447 Advanced Criminology ..................................... 3
- SOC 250 Social Statistics I [Area I.4.] ............................. 3
- SOC 304 Methods in Sociological Research ...................... 3
- SOC 341-342 Quantitative Methods of Social Research I-II may be substituted for SOC 250 and SOC 304

Sociology/Anthropology ..................................................... 12

- ANT 135 Introduction to Cultural Anthropology [Area III.3.] ................................................................. 3
- SOC/ANT 214 Racial and Cultural Minorities [Area III.4c.] ................................................................. 3
- SOC 308 Social Psychology .............................................. 3
- SOC 462 Complex Organizations .................................... 3

Concentration ................................................................. 21

Students choose one of the following concentrations to fulfill their curriculum requirements.

Concentration (I): Legal Studies
Take all of the following courses: ........................................ 9
- PHI 130 Introduction to Logic, PHI 355 Philosophy of Law, PLS 456 Criminal Law I
Choose one of the following courses: ................................. 3
- PLS 364 The Legislative Process, PLS 385 Judicial Process and Behavior
Choose three of the following courses: ................................ 9
- CRM 460 Criminal Law II, CRM 488 Internship
- ANT 330 Anthropology of Law and Politics
LAW 293 Legal Environment of Business, LAW 295 Legal Research
BE 211 Introduction to Paralegalism and Legal Terminology, BE 304 Legal Writing, Research, and Analysis I, BE 412 Court Rules, Forms, and Legal Drafting
CTA 357 Interviewing as Communication
PLS 315 Consumer Law and Politics
IT 213 Construction Safety

Concentration (2): Law Enforcement
Take all of the following courses: ......................... 15
CRM 431 Police in Modern Society
PLS 456 Criminal Law I, PLS 385 Judicial Process and Behavior
SWK 120 Introduction to Social Work Services and Professional Roles
PSY 340 Psychological Perspectives on Prejudice and Discrimination
Choose two of the following courses: ......................... 6
SOC 306 The Urban Community, SOC 448 Collective Behavior
CRM 460 Criminal Law II, CRM 488 Internship
PSY 360 Abnormal Psychology
PLS 308 Political Violence and Revolution
HED 390 Drug Use and Abuse or SWK 431 Substance Abuse

Concentration (3): Corrections
Take all of the following courses: ......................... 15
CRM 331 Introduction to Corrections
SWK 120 Introduction to Social Work Services and Professional Roles, SWK 463 Social Work Practice with Legal Offenders
PSY 360 Abnormal Psychology
G&C 450 An Introduction: Counseling Concepts and Skills
Choose two of the following courses: ......................... 6
SOC 402 Group Dynamics
CRM 488 Internship
PSY 340 Psychological Perspectives on Prejudice and Discrimination, PSY 365 Behavior Modification
HED 390 Drug Use and Abuse or SWK 431 Substance Abuse
CTA 357 Interviewing as Communication

Concentration (4): Management and Administration
Take all of the following courses: ......................... 12
SOC 451 Sociology of Work and Occupations
PLS 270 Public Administration, PLS 381 Public Policy Analysis
SWK 470 Supervising Staff and Volunteers
Choose three of the following courses: .................. 9-10
CRM 488 Internship
ANT 345 Qualitative Methods
PSY 301 Introductory Experimental Psychology
PLS 334 Personnel Administration in Government
MGT 202 Business Communications, MGT 386 Organizational Behavior and Theory
LAW 403 Employment Law
CTA 357 Interviewing as Communication

ANTHROPOLOGY MAJOR

The program in anthropology advances the goals of liberal education, and provides majors with a foundation for graduate study. Anthropology is the comparative study of human behavior and basic institutions of human societies, such as economics, law, politics, religion, medicine, and kinship in a cross-cultural perspective. Flexibility within the major and in the choice of a minor allows students to select courses meeting their special needs.

SOCIOLoGY MAJor

This major includes the study of social class, community, 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.

ACADEMIC MINORS

ANTHROPOLOGY MINOR

Minor in anthropology ................................. 20
1. Required courses ................................. 15
ANT 135 Introduction to Cultural Anthropology .......... 3
ANT 140 Introduction to Prehistoric Anthropology .......... 3
ANT 439 Anthropological Theory ........................ 3
2. Electives ........................................ 5
Choose five credits from anthropology. With permission of one of the anthropology faculty, sociology or criminology courses at the 300-level or above may be chosen.
<table>
<thead>
<tr>
<th>Minor in criminology and criminal justice</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required core courses</td>
<td>9</td>
</tr>
<tr>
<td>CRM 300 Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRM 301 Criminology</td>
<td>3</td>
</tr>
<tr>
<td>PLS 301 The American Legal System</td>
<td>3</td>
</tr>
<tr>
<td>2. Restricted criminology electives</td>
<td>6</td>
</tr>
<tr>
<td>Choose two courses from the following:</td>
<td></td>
</tr>
<tr>
<td>CRM 331 Introduction to Corrections, CRM 354 Juvenile Delinquency, CRM 370 Corporate and White Collar Crime, CRM/SOC 412 Law and Society, CRM 460 Criminal Law II, CRM 431 Police in Modern Society</td>
<td></td>
</tr>
<tr>
<td>3. Restricted social science electives</td>
<td>6</td>
</tr>
<tr>
<td>Choose two courses from the following:</td>
<td></td>
</tr>
<tr>
<td>PLS 308 Political Violence and Revolution, PHI 355 Philosophy of Law, PSY 360 Abnormal Psychology, HED 390 Drug Use and Abuse, PLS 412 Comparative Legal Systems, SWK 431 Substance Abuse, PLS 456 Criminal Law, SOC 462 Complex Organization</td>
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<table>
<thead>
<tr>
<th>Sociology Minor</th>
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<tbody>
<tr>
<td>Minor in sociology</td>
<td>20-21</td>
</tr>
<tr>
<td>1. Required courses</td>
<td>14-15</td>
</tr>
<tr>
<td>SOC 105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 135 Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Sociology or criminology courses at the 300-level or above</td>
<td>8-9</td>
</tr>
<tr>
<td>2. Electives</td>
<td>6</td>
</tr>
<tr>
<td>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.</td>
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<tr>
<th>Socio-cultural perspectives on the family Interdisciplinary Minor</th>
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<tbody>
<tr>
<td>This minor combines the perspectives of anthropology and sociology by examining the socio-cultural 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.</td>
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<thead>
<tr>
<th>Minor in socio-cultural perspectives on the family</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required courses</td>
<td>21</td>
</tr>
<tr>
<td>ANT 135 Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 309 Culture and Personality</td>
<td>3</td>
</tr>
<tr>
<td>SOC 105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 204 Marriage and Family</td>
<td>3</td>
</tr>
<tr>
<td>SOC 303 Sociology of Childhood and Youth</td>
<td>3</td>
</tr>
<tr>
<td>SOC 344 Sociology of Sex Roles</td>
<td>3</td>
</tr>
<tr>
<td>SOC 450 The Family</td>
<td>3</td>
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<thead>
<tr>
<th>Health and Illness Studies Interdisciplinary Minor</th>
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<tbody>
<tr>
<td>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.</td>
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<table>
<thead>
<tr>
<th>Minor in health and illness studies</th>
<th>21</th>
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</thead>
<tbody>
<tr>
<td>1. Required courses</td>
<td>15</td>
</tr>
<tr>
<td>SOC 105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 135 Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 311 Social Gerontology</td>
<td>3</td>
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<tr>
<td>SOC 312 Medical Sociology</td>
<td>3</td>
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<tr>
<td>ANT 329 Medical Anthropology</td>
<td>3</td>
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<tr>
<td>2. Electives</td>
<td>6</td>
</tr>
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**Teaching Major**

**Sociology Major**

**Secondary Teacher Certification**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate 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 science ("CX"). The certification test covering this field is #12, "Sociology."

**Basic Studies**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>I-B-1</td>
<td>ENG 121 English Composition</td>
<td>3</td>
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<tr>
<td>I-B-2</td>
<td>Basic Studies requirement</td>
<td>See inside back cover</td>
</tr>
<tr>
<td>I-B-3</td>
<td>Basic Studies requirement</td>
<td>See inside back cover</td>
</tr>
<tr>
<td>I-B-4</td>
<td>SOC 200 Social Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>I-B-5</td>
<td>Basic Studies requirement</td>
<td>See inside back cover</td>
</tr>
<tr>
<td>II-B-1</td>
<td>Basic Studies requirement</td>
<td>See inside back cover</td>
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<tr>
<td>II-B-2</td>
<td>Basic Studies requirement</td>
<td>See inside back cover</td>
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<tr>
<td>II-B-3</td>
<td>Basic Studies requirement</td>
<td>See inside back cover</td>
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<tr>
<td>III-B-1</td>
<td>Basic Studies requirement</td>
<td>See inside back cover</td>
</tr>
<tr>
<td>III-B-2</td>
<td>HIS 102 Western Civilization, 1648 to World War I</td>
<td>3</td>
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<tr>
<td>III-B-3</td>
<td>One of: GEO 107 Introduction to Geography</td>
<td>3</td>
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<tr>
<td></td>
<td>GEO 110 World Regions</td>
<td>3</td>
</tr>
<tr>
<td>III-B-4</td>
<td>HIS 103 Twentieth Century Civilization</td>
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<tr>
<td>IV-B-1</td>
<td>Basic Studies requirement</td>
<td>See inside back cover</td>
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<tr>
<td>IV-B-2</td>
<td>Basic Studies requirement</td>
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<tr>
<td>IV-B-3</td>
<td>Basic Studies requirement</td>
<td>See inside back cover</td>
</tr>
<tr>
<td>IV-B-4</td>
<td>Basic Studies requirement</td>
<td>See inside back cover</td>
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<tr>
<td></td>
<td>Physical education, military science, or equivalent</td>
<td>2</td>
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</table>

A course in economics, if not included in the minor (3)

**Credit hours in Basic Studies:** 52

**Teaching Major**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SOC 105 Introductory Sociology</td>
<td>3</td>
<td></td>
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<tr>
<td>ANT 135 Introduction to Cultural Anthropology</td>
<td>3</td>
<td></td>
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<tr>
<td>SOC 304 Methods in Sociological Research</td>
<td>3</td>
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<tr>
<td>SOC 308 Social Psychology</td>
<td>3</td>
<td></td>
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<tr>
<td>SOC 403 Modern Sociological Theory</td>
<td>3</td>
<td></td>
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<tr>
<td>Two of: SOC 306 The Urban Community</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SOC 307 Industrial Sociology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SOC 310 Contemporary American Class Structure</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SOC 405 Honors Seminar</td>
<td>3</td>
<td></td>
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<tr>
<td>SOC 462 Complex Organizations</td>
<td>3</td>
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<tr>
<td>Two courses from sociology, anthropology (at the 300-level or above), or social work (at the 300-level or above)</td>
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</table>

**Minor**

A minor in one of economics, geography, history, political science, psychology, or social science

**Subtotal, Major and minor:** 47
**Sociology Minor**

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

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in sociology, certification code "CF." The certification test covering this field is #12, "Sociology.

- SOC 105 Introductory Sociology (3)
- ANT 135 Introduction to Cultural Anthropology (3)
- 8 hours of sociology or criminology courses at the 300-level or above.
- 6 hours of electives. Any course in anthropology must be at the 300-level or above. Social work courses may not be counted.

**Sociology Courses**

- **SOC 105 Introductory Sociology.** 3 hrs
  Basic sociological concepts are used to analyze aspects of American society in intergroup relations, rural and urban communities, social classes, and in family, educational, religious, governmental, and economic institutions.

- **SOC 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.

- **SOC 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 sub-groups, and personality disorders. Prereq: SOC 105.

- **SOC 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: SOC 105.

- **SOC 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. Not open to students with credit in ANT 205.

- **SOC 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; proposed solutions of ethnic problems. Prereq: SOC 105 or ANT 133.

- **SOC 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: SOC 105 and 1 1/2 years high school algebra or MTH 104.

- **SOC 277/278/279 Special Toples.** 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 as long as different topics are studied, but only twice for credit toward a major or minor in sociology. Prereq: SOC 105.

- **SOC 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: SOC 105.

- **SOC 304 Methods in Sociological Research.** 3 hrs
  Methods used in sociological research and their various applications. Participation in conducting a survey. Prereq: Three courses in sociology and junior standing.

- **SOC 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: SOC 105.

- **SOC 307 Industrial Sociology.** 3 hrs
  The social structure of the workplace, the work experience of participants and the relation of both to the community and society. Formal structure of large-scale organizations and the operation of small groups within them. Prereq: SOC 105.

- **SOC 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 SOC 308 and PSY 309. Prereq: SOC 105 and PSY 101.
SOC 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 ANT 309.
Prereq: SOC 105 or ANT 135 and PSY 101.

SOC 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 subsystems.
Prereq: SOC 105.

SOC 311 Social Gerontology. 3 hrs
Demographic and socio-cultural 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: SOC 105.

SOC 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: SOC 105 and sophomore standing.

SOC 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: SOC 105 or ANT 135.

SOC 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: SOC 105 or ANT 135 or department permission.

SOC 330 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: SOC 105 or department permission.

SOC 335 The Study of Non-Primitive Societies. 3 hrs
An analysis of studies and problems anthropology has investigated in non-primitive societies. Problems of analysis in complex societies, national character, folk-urban continuum, peasants and colonialism. Not open to those with credit in ANT 335.
Prereq: ANT 135 or equivalent and sophomore standing.

SOC 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 ANT 336.
Prereq: ANT 135 or equivalent and sophomore standing.

SOC 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 SOC 250 or SOC 304. Must be followed by SOC 342.
Prereq: SOC 105, high school algebra or equivalent.

SOC 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 SOC 250 or SOC 304.
Prereq: SOC 341.

SOC 344 Sociology of Sex Roles. 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 and SOC 305.

SOC 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 ANT 345.
Prereq: Nine hours in anthropology or department permission.

SOC 375 Political Sociology. 3 hrs
The structure of political systems analyzed from an individual and social system perspective.
Prereq: Nine credit hours in sociology or political science or junior/senior standing.

SOC 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 as long as different topics are studied, but only twice for credit toward a major or minor in sociology.
Prereq: SOC 105.

SOC 387 Cooperative Education. 3 hrs
Practical experience in industrial, business, or government settings to provide job skills. Credit/no credit basis.
Prereq: Twelve hours of sociology, six of which must be at the 300 level or above.

SOC 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: SOC 105 or PSY 101.

SOC 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: Three courses in sociology and junior standing.

SOC 405 Honors Seminar. 3 hrs
An undergraduate honors seminar examining selected topics in theory, research, and applied sociology.
Prereq: Senior status, a 3.0 grade point average, 12 hours of social science courses, or department permission.

SOC 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: SOC 105.

SOC 440 Sociology of Technology. 3 hrs
A study of social factors involved in, the creation, innovation, distribution, evaluation, and social effects of technology.
Prereq: SOC 105.

SOC 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: SOC 105.

SOC 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 SOC 105 or ANT 135.

SOC 451 Sociology of Work and Occupations. 3 hrs
Social aspects of work. Recruitment, career patterns, professionalization, sociology of the workplace and labor force.

Prereq: SOC 105.

SOC 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: SOC 105.

SOC 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: SOC 105.

SOC 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 as long as different topics are studied, but only twice for credit toward a major or minor in sociology.

Prereq: SOC 105.

SOC 487 Cooperative Education. 3 hrs
Practical experience in industrial, business, or government settings to provide job skills. Credit/no credit basis.

Prereq: SOC/CRM 387.

SOC 489 Internship. 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: Senior standing in major.

SOC 497/498/499 Independent Study. 1/2/3 hrs
Directed reading and research on problems within the field of sociology.

Prereq: Department permission.

ANT 135 Introduction to Cultural Anthropology. 3 hrs
Man's adaptation to natural and cultural environments focusing upon primitive and non-Western societies. The basic institutions of human society such as kinship, religion, law, politics, and economics.

ANT 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: ANT 135.

ANT 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: ANT 135.

ANT 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.

ANT 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 standing. ANT 135, ANT 140, and ENG 121.

ANT 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. Not open to students with credit in SOC 205.

ANT 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; proposed solutions of ethnic problems.

Prereq: SOC 105 or ANT 135.

ANT 233 Peoples and Cultures of Mexico. 3 hrs
A regional, historical, and topical survey of Mexican cultures.

Prereq: ANT 135.

ANT 236 Peoples and Cultures of Africa. 3 hrs
Regional, historical, and topical survey of African cultures.

Prereq: ANT 135.

ANT 237 Indians of North America. 3 hrs
Regional, historical, and topical survey of aboriginal North American cultures.

Prereq: ANT 135 or department permission.

ANT 245 Culture of Japan. 3 hrs
A historical and topical survey of Japanese culture.

Prereq: ANT 135 or department permission.

ANT 248 Peoples and Cultures of the Pacific. 3 hrs
A regional, historical, and topical survey of aboriginal Pacific cultures.

Prereq: ANT 135.

ANT 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 as long as different topics are studied.

Prereq: ANT 135.

ANT 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 SOC 309.

Prereq: SOC 105 or ANT 135 and PSY 101.
ANT 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: ANT 135 or department permission.

ANT 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: ANT 135 and sophomore standing.

ANT 335 The Study of Non-Primitive Societies. 3 hrs
A study of the studies and problems that anthropology has investigated in non-primitive societies. Problems of analysis in complex societies, national character, folk-urban continuum, peasants, and colonialism. Not open to those with credit in SOC 335. Prereq: ANT 135 or equivalent and sophomore standing.

ANT 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 SOC 336. Prereq: ANT 135 or equivalent and sophomore standing.

ANT 338 Anthropology of Religion. 3 hrs
The anthropological study of religious belief and ritual in primitive and peasant societies. Prereq: ANT 135 and sophomore standing.

ANT 339 Economic Anthropology. 3 hrs
Comparative study of the ways in which societies organize themselves for purposes of production, distribution, and exchange of goods and services. The relationship between economic activities and other aspects of culture including religion, politics, and social organization. The effects of an economic system on the individual’s behavior. Prereq: ANT 135 and sophomore standing.

ANT 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: ANT 135 or LIN 201 or LIN 223, and sophomore standing.

ANT 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 SOC 345. Prereq: Nine hours in anthropology or department permission.

ANT 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: ANT 135.

ANT 360 Cultural Ecology. 3 hrs
The comparative study of patterns and processes of societal adaptation to the physical environment and to contacts with other societies at various levels of socio-political organization. Prereq: ANT 135.

ANT 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 as long as different topics are studied. Prereq: ANT 135.

ANT 387 Cooperative Education. 3 hrs
Practical experience in industrial, business, or government settings that provides job skills. Credit/no credit basis. Prereq: Twelve hours of anthropology, six of which must be at the 300 level or above.

ANT 437 Kinship and Social Structure. 3 hrs
The comparative study of kinship and social structure traced from primitive through complex societies. Prereq: Three courses in anthropology and junior standing.

ANT 439 Anthropological Theory. 3 hrs
Study of various theoretical approaches within the field of cultural anthropology. Theoretical perspectives of a number of European and American schools discussed from analytical and historical viewpoints. Prereq: Four courses in anthropology including ANT 135 and ANT 140.

ANT 441 Seminar in Anthropology. 3 hrs
An intensive study of a problem of current research interest in anthropology. Prereq: Four courses in anthropology and department permission.

ANT 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 as long as different topics are studied. Prereq: ANT 135.

ANT 487 Cooperative Education. 3 hrs
Practical experience in industrial, business, or government settings that provides job skills. Credit/no credit basis. Prereq: ANT 387.

ANT 497/498/499 Independent Study. 1/2/3 hrs
Directed reading and research on problems within the field of anthropology. Prereq: ANT 135 and department permission.

CRIMINOLOGY COURSES

CRM 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.

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: Department permission.

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. Not open to students with less than 35 semester hours. Prereq: SOC 105 or junior standing.

CRM 301 Criminology. 3 hrs
The nature, incidence, and prevalence of crime. Theory of crime and delinquency causation. Prereq: SOC 105 or junior standing.
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: SOC 105. Not open to freshmen.

CRM 370 Corporate and 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: SOC 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 topics course several times as long as different topics are studied, but only twice for credit toward a major or minor in criminology.
Prereq: SOC 105.

CRM 387 Cooperative Education. 3 hrs
Practical experience in industrial, business, or governmental settings to provide job skills. Credit/no credit basis.
Prereq: Twelve hours of sociology, six of which must be at the 300 level or above.

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 SOC 412.
Prereq: SOC 105.

CRM 431 Police in Modern 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 selected problems in criminology; the application of criminology to policies and programs of crime prevention and control.
Prereq: CRM 301 or CRM 506, and CRM 300 or CRM 507; or department permission.

CRM 460 Criminal Law II. 3 hrs
The distinguishing characteristics of criminal law and its sources. Problems in determination of criminal liability; crimes against property; crimes against the person; the defenses to criminal charges.
Prereq: Junior standing.

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: Department permission.

CRM 487 Cooperative Education. 3 hrs
Practical experience in industrial, business, or government settings to provide job skills. Credit/no credit.
Prereq: CRM/SOC 387.

CRM 498/499 Internship. 3 hrs each
Students are assigned a minimum of eight hours per week to a governmental or private agency dealing with the crime problem.

The agency, 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. May be repeated once for credit.
Prereq: Senior standing, CRM 300-301, and department permission. Second semester juniors may be admitted by department permission. Requests for admission by students who do not meet these requirements must be approved by the Faculty Committee on Criminology and Criminal Justice.

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.
WOMEN'S STUDIES

Ellene Tratras Contis
Director
720 Pray-Harrold
487-1177

Professors: Margot Duley (HIS), Carol Haddad (IDT), Daryl Hafter (HIS), James Holoka (FLABS), Sandra McClernon (SpEd), Barbara Richardson (SAC), Marie Richmond-Abbott (SAC), Ellen Schwartz (FA), Joanna Scott (PLS), Karen Sinclair (SAC)

Associate Professors: Ellene Tratras Contis (CHM), Margaret Crouch (PHI), Rachel Brett Harley (MUS), Kate Mehuron (PHI), Alexandra Norton (LIT)

Assistant Professors: Betty Barber (HECR), Elisabeth Dauemner (ENG), Deborah Figart (ECO), Christina Jose-Kampfner (TE)

Instructors: Barbara Bilgê (SAC), Elizabeth Hackett, Joette Thomas

The Women's Studies program offers an interdisciplinary academic 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.

Program of Study
Curriculum:
Women's Studies minor

Advising is the responsibility of the program director.

Advising coordinator:
Ellene Tratras Contis

ACADEMIC MINOR

WOMEN’S STUDIES MINOR

Sem hours

1. Required courses .........................................................  12
   WMS 200 Introduction to Women's Studies ......................  3
      Choose three courses from the following four:
      WMS/HIS 335 History of Women in Europe
      WMS/LIT 443 Women in Literature
      WMS/PSY 242 Psychology of Women
      WMS/SOC 344 Sociology of Sex Roles
      (The course not taken above may be included as one of the restricted electives)

2. Restricted electives .....................................................  9
   Choose nine credits from the following:
   WMS/BE 205 Women in Business; WMS 279/PHI 226
   Philosophy of Women; WMS/ECO 328 Economics of Women;
   WMS/HIS 336 History of Women in the United States and Great Britain, 1800 to the Present;
   WMS/ANT 355 Anthropology of Women; WMS/PLS 365
   Women and Politics; WMS/SFD 402 Sexism and Education;
   WMS/PED 405 Women in Sports; WMS/IDT 420 Women and Technology;
   WMS/FA 436 Women in Art

WOMEN'S STUDIES COURSES

WMS 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 as long as 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.

WMS 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.

WMS 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.

WMS 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 101/102.

WMS 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 as long as 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.

WMS 322 Family Financial Management. 3 hrs
Management of family resources to solve economic problems and fulfill goals and needs through consideration of investments, family decision-making, taxes, estate planning, credit, and insurance.

WMS 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 non-traditional occupations. Includes some international comparisons.
Prereq: One course in economics or junior standing.

WMS 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.

WMS 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.

WMS 344 Sociology of Sex Roles. 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
Prereq: Sophomore standing.

WMS 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 as long as the subject matter is
WMS 387 Cooperative Education. 3 hrs
This course provides students with an opportunity to deal directly with issues affecting women by working with agencies and local organizations.
Prereq: 12 hours of previous coursework in women's studies.

WMS 402 Sexism and Education. 3 hrs
How sexist attitudes and behaviors affect and are affected by school policies and practices; educational aims, staff relations, teaching styles, decision-making, treatment of pupils, instructional materials, anti-sexist programs.

WMS 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.

WMS 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 technological society or technology-based professions; explore women's roles in several specific technology professions.

WMS 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.

WMS 443 Women in Literature. 3 hrs
A study of women and their experiences as described in literature.
Prereq: Two courses in literature.

WMS 450 Adult Role Transitions. 3 hrs
Investigation of changes during early, middle, and later adulthood. Normative and non-normative role transitions related to work and family for women and men.

WMS 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 as long as 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.

WMS 487 Cooperative Education. 3 hrs
This course provides students with an opportunity to deal directly with issues affecting women by working with agencies and local organizations.
Prereq: WMS 387.

WMS 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

Stewart Tubbs, Dean
Susan E. Moeller, Acting Associate Dean
Amelia Chan, Assistant Dean
473 Gary M. Owen Building

DEPARTMENTS

Accounting
Finance and Computer Information Systems
Management
Marketing
COLLEGE OF BUSINESS

The College of Business develops future business leaders by providing high quality, professionally accredited programs at the undergraduate and graduate levels and by offering professional development education to the business community. The college values and promotes scholarly research, applications, and an international perspective in its programs.

Professional preparation is provided for students who contemplate administrative careers in business, government agencies, and public administration. College of Business programs emphasize the combination of tools, concepts, and theory for practical application to business decisions and business problems.

The college also serves as an educational resource for business firms of regional, national, and international scope and maintains alliances that are mutually beneficial to students, faculty, and the college. Its faculty is professionally recognized for its contributions to the body of knowledge and understanding of management and business enterprise.

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
Management
Marketing
Production and Operations Management

*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 American Assembly of Collegiate Schools of Business.

ADMISSION TO THE COLLEGE OF BUSINESS is open to student applicants with 44 or more semester hours completed who are enrolled in the last 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 1
Spring and summer sessions: March 1
Fall semester: March 1

Applications for each semester must be accompanied by a progress report, tabulation of transfer credit, 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 of Business directly:

Undergraduate Business Program Office
College of Business
Eastern Michigan University
401 Owen
Ypsilanti, Michigan 48197
(313) 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 semester hours with a minimum cumulative grade point average of 2.50. In addition, the following courses (1 through 13) must be recognized as successfully completed by the University, and the business courses (9 through 13) must be completed with a minimum earned grade of "C-" in each:

1. ENG 121 English Composition
2. CTA 121/124 Fundamentals of Speech
3. A language or communication elective
4. MTH 118-119 Mathematical Analysis for Social Sciences I-II or MTH 120 Calculus I and MTH 122 Elementary Linear Algebra
5. ECO 201-202 Principles of Economics I-II
6. PLS 112/113 American Government or PLS 202 State and Local Government
7. Philosophy or religion (logic or ethics strongly recommended)
8. PSY 101/102 General Psychology
9. ACC 240-241 Principles of Accounting I-II
10. LAW 293 Legal Environment of Business
11. IS 215 End-User Computing
12. MGT 202 Business Communications
13. 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. No student majoring in a program outside of the College of Business will be given more than 30 semester 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. 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.

Second bachelor's degree students must apply to the Undergraduate Admissions 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 non-matriculated students are not eligible to register in College of Business courses. Such students should contact the Undergraduate Business Program Office for advisement.

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 semester hours, as well as completion of appropriate prerequisites for intended coursework. 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 pre-business students are encouraged to contact the Undergraduate Business Program Coordinator (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.

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 50 semester hours in economics, psychology, and mathematics and in related areas of arts, sciences, and technology within the minimum 124 hours required to qualify for a degree.

In the program of study outlined below, the number of basic studies credit hours in symbolic 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 basic studies requirements also may satisfy specific program requirements, as, in the case of economics and mathematics. Both course and semester 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 basic studies 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 Eastern Michigan University 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.

<table>
<thead>
<tr>
<th>Area</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbolics and communication</td>
<td>14-18</td>
</tr>
<tr>
<td>One course in written composition</td>
<td>3</td>
</tr>
<tr>
<td>One course in speech communication</td>
<td>2-3</td>
</tr>
<tr>
<td>One course in one of the following areas</td>
<td>3-5</td>
</tr>
<tr>
<td>a. An upper-level course in written composition</td>
<td></td>
</tr>
<tr>
<td>b. An upper-level course in speech communication</td>
<td></td>
</tr>
<tr>
<td>c. A course in foreign language composition</td>
<td></td>
</tr>
</tbody>
</table>

Mathematics*
Option**
MTH 118-119 Mathematical Analysis for Social Sciences I-II ........................................ 6
or Option II***
MTH 120 Calculus I ........................................ 4

MTH 122 Elementary Linear Algebra .................. 3
Science and technology ................................ 9-10
(Please see University basic studies requirements.)
  a. One course in physical science .................. 3-4
  b. One course in life science .................... 3
  c. One course in science or technology .......... 3
Social science ........................................... 12
  a. A course in U.S. government .................. 3
  b. A course in history ......................... 3
  c. ECO 201-202 Principles of Economics I-II ...... 6

Arts and humanities ................................... 11-12
(Please see University basic studies requirements.)
Logic or ethics is strongly recommended for philosophy or religion requirement.

Please note that at least one approved course in cross-cultural or international studies must be completed in the process of meeting the requirements of the foregoing basic studies areas. Approved courses are designated with an asterisk (*) in the University basic studies section of catalog.

Practical arts ........................................ 57-69

Business administration core .................... 33
(All 200-level core courses must be completed prior to admission to the College of Business)
IS 215 End-User Computing (satisfies computer literacy requirement) ............................ 3
DS 265 Business Statistics I .......................... 3
ACC 240-241 Principles of Accounting I-II ...... 6
MGT 202 Business Communications .................. 3
LAW 293 Legal Environment of Business .......... 3
FIN 350 Principles of Finance .................... 3
MKT 360 Principles of Marketing .................. 3
MGT 386 Organizational Behavior and Theory ..... 3
POM 374 Introduction to Production/Operations Management ........................................ 3
MGT 490 Business Policy ............................. 3
(All 300-level core courses must be completed before enrollment in MGT 490 Business Policy.)

Academic major ........................................ 24-36
Choose one of the following: accounting, accounting information systems, business computer systems, economics, finance, general business, management, marketing, production/operations management, real estate

Physical education and health ...................... 2
Physical education activity courses .............. 2
(Any two military science courses may be applied)

Electives ........................................ 13-31
Students planning to continue study in a graduate school of business are urged to complete the following courses as electives:
ECO 301 Intermediate Macroeconomic Analysis
ECO 302 Intermediate Microeconomic Analysis
DS 367 Business Statistics II

Total ........................................ 124

*Students planning to complete the mathematics requirement at another four-year college or university, or at a two-year community college, must select courses that include linear algebra, differentiation, and integration.

*Students having a "B" average in high school mathematics courses through trigonometry should not elect Option I.

***Students planning to pursue graduate study in business administration are encouraged to select Option II.
THE JOINT BACHELOR OF BUSINESS 
ADMINISTRATION—BACHELOR OF ARTS 
DEGREE IN LANGUAGE AND WORLD 
BUSINESS

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, German or Spanish.

All LWB joint degree students take part in a cooperative education internship. Qualified students are eligible for placement in companies in locations such as Paris, Rouen, Madrid, and Stuttgart. Caracas and Tokyo are scheduled for placements also. Companies around the world that have hosted EMU interns include Mercedes-Benz, Volkswagen, Bosch, 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 are placed regionally and work one or two semesters for an employer in a staff support or administrative capacity.

The program is designed so the student can finish the joint degree in 154 credit hours, including all 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.

1. Basic Studies

Please refer to University basic studies requirements for additional information.

Area

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>14-16</td>
</tr>
<tr>
<td>One course in written composition</td>
<td></td>
</tr>
<tr>
<td>One course in speech communication</td>
<td></td>
</tr>
<tr>
<td>One elective course in foreign language</td>
<td></td>
</tr>
<tr>
<td>MTH 118 Mathematical Analysis for Social Sciences I or MTH 122 Elementary Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>MTH 119 Mathematical Analysis for Social Sciences II or MTH 120 Calculus I</td>
<td></td>
</tr>
<tr>
<td>Science and technology</td>
<td>9-10</td>
</tr>
<tr>
<td>a. One course in physical science</td>
<td></td>
</tr>
<tr>
<td>b. One course in life science</td>
<td></td>
</tr>
<tr>
<td>c. One course in science or technology</td>
<td></td>
</tr>
<tr>
<td>Social Science</td>
<td>15</td>
</tr>
<tr>
<td>GEO 110 World Regions</td>
<td></td>
</tr>
<tr>
<td>One course in U.S. Government</td>
<td></td>
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<tr>
<td>HIS 103 Twentieth Century Civilization or HIS 101/102 Western Civilization</td>
<td></td>
</tr>
<tr>
<td>ECO 201-202 Principles of Economics I-II</td>
<td></td>
</tr>
<tr>
<td>Arts and humanities</td>
<td>11-12</td>
</tr>
<tr>
<td>Two intermediate foreign language courses or two advanced foreign language literature courses. See note 2 below.</td>
<td></td>
</tr>
<tr>
<td>One course in philosophy or religion</td>
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</tr>
<tr>
<td>One course in art, dance, music or theatre arts</td>
<td></td>
</tr>
<tr>
<td>Please note that at least one approved course in cross cultural or international studies must be completed in the process of meeting the basic studies requirements. Approved courses are designated with an asterisk(*) in the University basic studies section of the catalog.</td>
<td></td>
</tr>
<tr>
<td>Physical education</td>
<td>2</td>
</tr>
<tr>
<td>Physical education activity courses</td>
<td></td>
</tr>
</tbody>
</table>

Note: Students can sometimes test out of certain basic studies courses or for up to 30 hours by using the CLEP examinations. See page 11.

2. Specialized studies in language and the social sciences

| Language component (FRN, GER, JPN, or SPN) | 18* |
| FRN/GER/JPN/SPN 343 Composition |  |
| FRN/GER/JPN/SPN 361 Language for International Trade |  |
| PLS 211 Introduction to Comparative Government, PLS 212 Introduction to International Politics, PLS 341 International Law, PLS 342 International Organizations, PLS 354 Government and Politics of Canada, PLS 367 Contemporary Political Systems of Latin America, PLS 412 Comparative Legal Systems |  |

*Note: Nine of these 18 hours may count toward basic studies provided they are in foreign language and advanced literature.

Language and International trade area studies | 9 |
| GEO/HIS 316 History and Geography of Modern Europe or GEO/HIS 317 or 326 History and Geography of Spanish America or Japan |  |
| One of the following: |  |
| PLS 211 Introduction to Comparative Government, PLS 212 Introduction to International Politics, PLS 341 International Law, PLS 342 International Organizations, PLS 354 Government and Politics of Canada, PLS 367 Contemporary Political Systems of Latin America, PLS 412 Comparative Legal Systems | |

3. Business core and business major | 57-60 |
| All 200-level core courses must be completed before admission to the College of Business. Most core courses will have an international component. | |
| Business core | 33 |
| MGT 202 Business Communications | 3 |
| IS 215 End-User Computing | 3 |
| satisfies computer literacy requirement | |
| DS 265 Business Statistics | 3 |
| ACC 240-241 Principles of Accounting I-II | 6 |
| LAW 293 Legal Environment of Business | 3 |
| FIN 350 Principles of Finance | 3 |
| POM 374 Introduction to Production/Operations Management | 3 |
| MKT 360 Principles of Marketing | 3 |
| MGT 386 Organizational Behavior and Theory | 3 |
| MGT 490 Business Policy | 3 |

Note: Students must seek admission to the College of Business before enrolling in its upper division (300- or 400-level) business courses.

Business major | 24-27** |
| Choose one of the following: | |
| Accounting |  |
| Computer Information Systems |  |
| Economics |  |
| Finance |  |
| General Business Management |  |
| Marketing |  |
| Production/Operations Management |  |
4. Other International courses .................................................. 15-18
   a. Required .................................................................12
      FLA 387 Cooperative Education (Spring/Summer
      available) ......................................................... 3
      FLA 499 Independent Study ..................................... 3
      MKT 460 International Marketing .............................. 3
      ECO 370 Comparative Economic Systems or ECO 480
      International Economics .................................. 3
   b. Choose two restricted electives from world business
      courses** .......................................................... 3-6
      MKT 375 International Business Transactions .......... 3
      MGT 492 Managing World Business Communication ... 3
      MGT 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. At least
      one course must be selected from the major and the second
      may be selected from any of these offerings. This may satisfy
      the major requirement regarding "restricted electives."
   ***Students may major in Accounting Information Systems (36-
      hour major). Graduation requirements will exceed 154 hours.

5. Free electives ............................................................. 0-6
   Total ............................................................................. 154

   Some students, including transfer students, may require a
   slightly higher number of hours depending on 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.

   COLLEGE OF BUSINESS COURSES

   COB 177/178/179 Special Topics. 1/2/3 hrs
   Team-taught current topics related to career preparation for business
   and industry.
   Prereq: Department permission.

   ACCOUNTING

   Mohsen Sharifi
   Department Head
   406 Gary M. Owen Building
   487-3320

   Professors: S. Thomas A. Cianciolo, E.A. Devine, D. Robert Okopry,
   Chandra P. Pathak, Mohsen Sharifi

   Associate Professors: George S. Clark, Wayne C. Ellis, Roger Gledhill,
   Zafar Khan, John W. Kerst, Money Kramer, Sue Ravetscroft,
   Andrew Snyir, Linda Woodland, Kenneth C. Young

   Assistant Professors: Amelia A. Baldwin-Morgan, Linda J.
   Burilovich, Susan C. Kattelus, Geraldine M. Kruse, Gary B.
   McCombs, David Senticeny

   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 de
   velop 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 com
   position and speech beyond the basic requirements.

   Programs of Study

   Majors:
   Accounting
   Accounting information systems

   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 (MSA). The MSA degree program and courses are
   described in the Graduate Catalog.

   ACADEMIC MAJORS

   ACCOUNTING MAJOR

   Students majoring in accounting are prepared for professional
   careers in three major areas:

   Public accounting, which leads to service as a Certified
   Public Accountant, primarily in the audit field. CPAs are inde
   pendent professionals who provide opinions on the fairness of financial
   statements prepared for investors. They also render tax service and
   management advisory service to clients.

   Industrial accounting, which leads to careers in financial ac
   counting, budget analysis, cost accountancy, and internal auditing. The
   basic function of an industrial accountant is to accumulate and report
   financial data that help management plan and control operations.

   Institutional or governmental accounting, which leads to
   positions in non-profit organizations and local, state, and federal
   governmental agencies. These professionals provide financial
   information about the effectiveness of operations, similar to industrial
   accountants, review tax returns, analyze cost reports on projects
   funded by government, and assist regulatory commissions in moni
   toring private industry and individual businesses.

   Through an internship program, students with good academic
   records have an opportunity to work in Public accounting or indus
   try. These internships provide education, salary, and exposure to
   professional experience.

   Upon graduation, accounting majors who wish to become Cer
   tified Public Accountants (public accounting), Certified Manage
   ment Accountants (industrial or governmental accounting), or Certified
Internal Auditors (industrial or governmental accounting) will meet the educational requirements and qualify to sit for national examinations that test for entrance into the above professional organizations. 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 semester hours for graduation.

Area | Sem hours
--- | ---
Practical arts | 57

Requirements (business administration core, page 207)

Academic major in accounting | 24
ACC 340-341 Intermediate Accounting I-II | 6
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 346 Governmental Accounting, ACC 440 Advanced Accounting, ACC 442 Advanced Cost Accounting, ACC 444 Advanced Tax Accounting, ACC 447 Contemporary CPA Problems, ACC 448 EDP Auditing and Controls, ACC 450 International Law, ACC 451 Advanced Internal Auditing, ACC 475 International Accounting, ACC 479 Special Topics, ACC 490 Directed Studies, ACC 540 Advanced Accounting I, ACC 541 Advanced Accounting II

Note: Students planning on sitting for the CPA examination in Michigan should elect ACC 346 Governmental Accounting or ACC 540 Advanced Accounting I.

ACCOUNTING INFORMATION SYSTEMS MAJOR

Accounting information systems is a four-year program designed to provide a bachelor's degree with a concentration in accounting and computer-based information processing. The program combines the coursework required for a degree in accounting with numerous computer 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 processing is fast becoming mandatory. Possible career choices include computer systems design, EDP auditing, computer security analysis, internal auditing, public accounting, government accounting, and managerial accounting.

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 semester hours for graduation.

Area | Sem hours
--- | ---
Practical arts | 69
Requirements (business administration core, see section under College of Business).

Academic major in accounting Information systems | 36
ACC 340-341 Intermediate Accounting I-II | 6
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 Database Concepts | 3
Choose 2 of the following: | 6
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)

Restricted electives | 0
Students may elect courses in other areas of interest

Note: Students planning on sitting for the CPA examination in Michigan should elect ACC 346 Governmental Accounting or ACC 540 Advanced Accounting I.

150-HOUR ACCOUNTING PROGRAM

COMBINED MSA AND BBA DEGREES

Admission Requirements
Following are the minimal standards for admission to the 150-Hour Program. 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 strengths in other areas. Special circumstances, particularly improvement in recent performance, will be considered on their merits by the 150-Hour Program Committee. Transfer credits and grades will be evaluated in terms of Eastern Michigan University equivalency.

Initial admission is dependent on:
1. Completion of 90 semester hours of undergraduate coursework including the College of Business requirements, Basic Studies, and ACC 341.
2. Cumulative grade point average of 3.00 on a 4.00 scale.
3. The candidate's written statement of personal goals.
4. Interview with the 150-Hour program director/adviser.

Admission to the graduate level requires:
1. Completion of 120 semester hours of undergraduate coursework including course content noted under initial admission above and the undergraduate components (i.e., required and restricted electives).
2. Graduate Management Admission Test score of 500 (must be taken during the 4th year so the candidate's score is received before admission to the 5th year).
3. Application to the University Graduate School with payment of fee.

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, please contact the Director of Graduate Business Programs, 401 Gary M. Owen Building, (313) 487-4444.

ACADEMIC MINOR

ACCOUNTING MINOR

Sem hours

Minor in accounting (for non-business majors) | 21
1. Required courses | 12
ACC 240-241 Principles of Accounting I-II | 6
ACC 340-341 Intermediate Accounting I-II | 6
2. Restricted electives | 9
Choose three courses from the following:
ACC 342 Managerial Cost Accounting, ACC 344 Tax Accounting, ACC 346 Governmental Accounting, ACC 356 Accounting Information Systems, ACC 440 Advanced Accounting, ACC 442 Advanced Cost Accounting, ACC 444 Advanced Tax Accounting, ACC 450 Internal Auditing, ACC 451 Advanced Internal Auditing, ACC 475 International Accounting
ACCOUNTING COURSES

ACC 130 Accounting for Non-Business Majors. 3 hrs
Introduction to use of numerical data, in particular financial information generated in an organization, with special emphasis on the content and interpretation of this information in the 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
Thorough study of the accounting cycle; how accounting serves to develop useful information about economic organizations. Problems of valuation and statement presentation of selected assets and liabilities. Problems of accounting for ownership equity.

ACC 241 Principles of Accounting II. 3 hrs
Expense analysis and cost accounting; use of accounting data to achieve managerial goals; influence of taxes on business decisions. Problems that arise in interpreting accounting data.
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.)
Prereq: ACC 240 or junior standing.

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. 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 an accounting major or minor is not permitted. Graded credit/no credit. Admission by application only. This course may be repeated once for additional credit.
Prereq: Department permission.

ACC 287 Cooperative Education. 3 hrs
One term of full-time or two terms of part-time employment at a business or public organization chosen for imparting a practical experience in accounting. Use on an accounting major or minor is not permitted. Graded credit/no credit. Admission 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; consolidations; 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 non-profit 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. Description of typical accounting systems and procedures within the business enterprise.
Prereq: IS 215 and ACC 342 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, breakeven; 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: 18 semester hours of accounting, including ACC 341 and ACC 356.

ACC 447 Contemporary CPA Problems. 3 hrs
Analysis of current accounting problems faced by the CPA profession. Audit, legal liability, ethics, 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 and ACC 445.

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 341 or permission of instructor.

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 final written report of the thesis. Prereq: Final semester in undergraduate accounting 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.

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: MTH 118, MTH 119, IS 215.

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 300 Quantitative Analysis and Statistics for Business. 3 hrs
An elementary course for MBA students emphasizing three quantitative areas: differentiation and optimization, probability and statistics, and a matrix algebra approach to systems of linear equations. Prereq: Two years of high school algebra or MTH 104 or equivalent.

DS 317 System Simulation. 3 hrs

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. 3 hrs
Four months of full-time employment at a business or public organization to impart a 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. 3 hrs
Four months of full-time employment at a business or public organization to impart a 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

Asrat Tessema
Department Head
412 Gary M. Owen Building
487-2454

FINANCE UNIT
Professors: Ramesh C. Garg, Asrat Tessema
Associate Professors: Alahassane Diallo, Ronald E. Hutchins, Susan Moeller
Assistant Professors: Robert Kiss, Mahmud Rahman

COMPUTER INFORMATION SYSTEMS UNIT
Professors: Imtiaz S. Ahmad, Badie Farah, Asad S. Khailany, Pedro Sanchez, Charles S. Saxon, Fathi Sokkar, V.M. Rao
Associate Professors: Sergio Antiochi, Juan C. Esteva, Wafa Khorshed, Stevan Mrdalj
Assistant Professors: Michel Mitri, Reino V. Warren

The Finance unit 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. Because of the need for good communication in business, students are encouraged to elect courses in English composition and speech beyond the basic requirements. Also recommended is DS 465 Applied Linear Statistical Models.

The Computer Information Systems unit prepares students for careers in business information systems, and the Production unit prepares students for careers in production and operations management.

Programs of Study
Majors:
- Computer information systems
- Finance
- Production/operations management

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 or the Master of Science degree in Information Systems (MSIS). These degree programs and courses are described in the Graduate Catalog.

ACADEMIC MAJORS

COMPUTER INFORMATION SYSTEMS MAJOR

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.

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 semester hours for graduation.

Academic major in computer information systems .................................................. 30

1. Required courses .................................................. 27
   - IS 219 File Processing and COBOL Programming .............................................. 3
   - IS 247 Software Design and Programming in Business ....................................... 3
   - IS 315 Applied Data Structures ........................................................................ 3
   - IS 380 Database Concepts ............................................................................... 3
   - IS 417 Systems Analysis and Design .................................................................. 3
   - IS 420 Business Data Communications and Computer Networks ...................... 3
   - IS 425 Software Engineering Management ......................................................... 3
   - IS 442 Information Resource Management .......................................................... 3
   - IS 449 Information Systems Development and Implementation Projects ............. 3

2. Restricted electives .................................................. 3

Choose one course from the following:
   - DS 317 System Simulation
   - IS 375 Object-Oriented Programming and Database
   - IS 410 Knowledge-Based Systems
   - IS 413 Evaluation and Application of Computer Hardware
   - IS 416 Computer Operating Systems
   - IS 426 Advanced Structured COBOL Programming
   - CSC 239 Assembly and Machine Language Programming
   - IT 431 Interactive Industrial Computer Graphics

FINANCE MAJOR

The finance major is designed for students interested in planning and managing assets and the acquisition of funds for investment by corporations, non-profit organizations, governmental units, and financial institutions.

To be completed are general requirements for the Bachelor of Business Administration degree, the academic major requirements below, and sufficient electives to meet the minimum of 124 semester hours for graduation.

Academic major in finance .................................................. 24

Required courses I .................................................. 15
   - FIN 354 Investments ........................................................................ 3
   - FIN 357 Financial Markets ........................................................................ 3
   - FIN 358 Analysis of Financial Statements or ACC 340.............................. 3
     Intermediate Accounting I ........................................................................... 3
   - FIN 359 Intermediate Financial Theory ......................................................... 3
   - FIN 450 Problems in Financial Management .................................................. 3

Required courses II .................................................. 6

Choose two courses from the following:
   - FIN 370 International Business Finance, FIN 451 Portfolio Management, FIN 453 Commercial Banking

Restricted Electives .................................................. 3

Choose one course from the following:
   - FIN 479 Special Topics
   - RES 310 Real Estate Finance or RES 340 Real Estate Investments
   - INS 351 Introduction to Risk and Insurance
   - ACC 340 Intermediate Accounting I
   - ECO 445 Economic Fluctuations and Forecasting
   - DS 367 Business Statistics II
PRODUCTION/OPERATIONS MANAGEMENT MAJOR

This major equips graduates to work in various kinds and sizes of production systems as well as to pursue graduate study in several areas. Emphasized are production planning and scheduling, material procurement, inventory control, project scheduling, quality control, layout of facilities, and time and motion studies. The program responds to social, economic, and technological developments. Students are prepared for careers as production planners, materials planners, production supervisors, and industrial buyers.

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 semester hours for graduation.

Sem hours

1. Required courses .......................................................... 15
   ACC 342 Managerial Cost Accounting ............................ 3
   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

2. Restricted electives .................................................... 9
   Choose three courses from the following:

FINANCE COURSES

FIN 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.

FIN 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 as long as different topics are studied.
Prereq: Department permission.

FIN 287 Cooperative Education. 3 hrs
Four months of full-time employment at a business or public organization in a finance position chosen for imparting a practical experience in finance. Use on a finance major or minor not permitted. Credit/no credit. Admittance by application only.
Prereq: ACC 240 and department permission.

FIN 350 Principles of Finance. 3 hrs
A survey course covering the financial operations of business corporations. It begins with a general overview, then goes into detail on several concepts and techniques used in financial decision making. Specific topics emphasized include the time value of money, asset valuation models, risk management, and financial statement analysis. The course is designed for the general business student.
Prereq: ACC 241 and DS 265.

FIN 352 Financial Management for Entrepreneurs. 3 hrs
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.
Prereq: FIN 350.

FIN 354 Investments. 3 hrs
Development and placement of investments in business and their relationship to economic, legal, and social institutions. Bonds, stocks, security markets, security market operation, new security
issues, investment policies, and U.S. government, state, and munici-
pal obligation.

Prereq: FIN 350.

FIN 357 Financial Markets. 3 hrs
The operation and behavior of capital markets and financial inter-
mediaries as sources of investment capital to the business firm.
Liability management and investment portfolio behavior of finan-
cial market participants. Flow of funds through money and capital
markets, and investment characteristics of securities traded. Term
structure of yields, yield differentials, and the valuation of debt and
equity securities.

Prereq: FIN 350.

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 deci-
sions include capital structure, dividend policy, lease or buy, merg-
ers and issuance of new securities.

Prereq: FIN 350.

FIN 370 International Business Finance. 3 hrs
The course will examine the problems, techniques, and policies of
financial decision-making in a multinational enterprise operating in
an international environment.

Prereq: FIN 350.

FIN 377/378/379 Special Topics. 1/2/3 hrs
These courses deal with subject matter not provided in other depart-
ment offerings. Students may elect such a course several times as
long as different topics are studied.

Prereq: Department permission.

FIN 387 Cooperative Education. 3 hrs
Four months of full-time employment at a business or public orga-
zination in a finance position chosen for imparting a practical
experience in finance. Use on a finance major or minor not permit-
ted. 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 Portfolio Management. 3 hrs
An advanced course for professional investment managers cover-
ing economic policy and forecasting, security valuation, technical
analysis, and portfolio methods and procedures.

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, liquid-
ity and profit maximization.

Prereq: FIN 350.

FIN 477/478/479 Special Topics. 1/2/3 hrs
These courses deal with subject matter not provided in other depart-
ment offerings. Students may elect such a course several times as
long as different topics are studied.

Prereq: Department permission.

FIN 487 Cooperative Education. 3 hrs
Four months of full-time employment at a business or public organiza-
tion in a finance position chosen for imparting a practical
experience in finance. Use on a finance major or minor not permit-
ted. 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 busi-
ness 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 departmen-
tal offerings. Students may elect more than once provided different
topics are studied.

Prereq: Department permission.

INS 258 Personal Insurance Planning. 3 hrs
A study of the major risks of individuals and the methods of handling
these risks. Topics covered include types of risks, handling risks,
purposes and nature of insurance, and basic insurance principles and
coverages. Primary emphasis is placed on family insurance pro-
grams: automobile, home, life, health, and retirement.

Prereq: Sophomore standing.

INS 277/278/279 Special Topics. 1/2/3 hrs
An exploration and study of topics not covered in other departmen-
tal 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 457 Property and Liability Insurance. 3 hrs
A study of the principles and practices of property and liability
insurance. Primary emphasis is on developing an understanding of
the various property and liability insurance contracts and their uses.
Role of risk manager in handling personal and business risk is
stressed.

Prereq: INS 351.

INS 458 Life and Health Insurance. 3 hrs
A study of the purposes, uses, and role of life insurance in our
society. Major topics covered are nature and uses, legal aspects,
Recent developments in computer technology have had a dramatic effect on the way decision-making is done in business. The advent of small but powerful computers has made it possible to capture knowledge and distribute it throughout corporations with computerized expert systems. These expert systems can be developed without programming in the traditional sense by using expert shells. In this class, students will use expert systems shells to create several expert systems. Additional topics related to the development and use of expert systems in business will also be studied. Intended for non-CIS majors.

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, Non-clerical Office Automation, Data Communications, and Local Area Networks, are covered. These applications cover all the functional areas of businesses. Coursework includes conceptual material as well as laboratory material.
Prereq: MTH 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.
Prereq: IS 215.

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.
Prereq: IS 215.

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 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.
Prereq: IS 247.

IS 375 Object-Oriented Programming and Database. 3 hrs
Students will gain an understanding of the principles of object-oriented programming and databases. Students will learn concepts and techniques of object-oriented software development, object-oriented programming principles, characteristics of object-oriented languages, and fundamentals of object-oriented database management systems. Students will also gain hands-on experience in designing and building object-oriented applications.
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 Database Concepts. 3 hrs
Database concepts for large-scale information systems. Logical and physical designs for data element usage; database management systems.
Prereq: IS 315.

IS 387 Cooperative Education. 3 hrs
Four months of full-time employment at a business or public organization to impart a practical experience in computer information systems. Prerequisites: credit in 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 non-technical 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 design 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 315.
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 219 and DS 265.

IS 420 Business Data Communications and Computer Networks. 3 hrs
In an information-based society, knowledge of data communications and computer networks is very 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 Pictorial Information Systems. 3 hrs
The study of Pictorial Information Systems is applicable to a variety of areas dealing with representation, storage, retrieval, manipulation, and communication of business information. Examples of the current activity in this area include documents, forms, and photographs in office information systems; pictorial databases for manufacturing information systems; image understanding support for information systems in semiconductor, aerospace, and other industries; and medical pictorial archiving and communication systems (PACS).
Prereq: IS 315.

IS 425 Software Engineering Management. 3 hrs
Introduction of the concept and techniques 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. Searchers, 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 441 FORTRAN Programming Language. 1 hr
An introduction to the FORTRAN language. Variables and constants, format statements, input/output, arithmetic and logical assignment statements, dimension statements and subscripts, subprograms, and advanced IO statements. Credit can be earned only by non-business undergraduate majors or by graduate students meeting a programming language requirement.

IS 442 Information Resource Management. 3 hrs
Most organizations use computers for operations, control and planning, and for office automation. Although computers facilitate and enhance the functioning of organizations, they do 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: IS 417.

IS 447 Basic Assembly Language. 2 hrs
Introduction to assembly language. Data format, storage allocation, symbolic programming, macro definition, data movement and branching, arithmetic operations, editing, tables, indexing, subroutines, program linkage, and interrupts. Credit can be earned only by non-business majors or by graduate students meeting a programming language requirement.
Prereq: IS 215 or equivalent.

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 are local businesses, industries, non-profit 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 417, IS 420, and IS 380.

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. 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. Admitance 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 maximum total 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, pur-
chasing, 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.** 3 hrs
Four months of full-time employment at a business or public organization to impart a practical experience in production/operations management disciplines. Credit/no credit basis for general elective credit only. Admission 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 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. Not open to ORIS majors.

**Prereq:** MGT 386.

**POM 428 Linear Programming.** 3 hrs
Theory and business applications of linear programming models. Formulation, graphical solution, simplex method, revised simplex method, duality theorem, sensitivity analysis, parametric programming, integer programming, transportation models, transshipment models, assignment models, input/output models, and zero-sum game models.

**Prereq:** IS 215.

**POM 472 Tools for Strategic Quality Management.** 3 hrs
This course focuses attention on "enumerative" and "analytical" statistical studies in relation to quality management. Topics include how to diagnose an unstable process and how to improve a stable process through the analysis of control charts; major modern philosophies by Deming and Taguchi concerning quality management. Examples and mini case studies are used.

**Prereq:** IS 215.

**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, maintenance planning and control.

**Prereq:** IS 215, DS 265, and POM 374.

**POM 475 Production and Inventory Control I.** 3 hrs
This is a two-course sequence in production and inventory management. Topics include differences between production to stock, production to order and assemble or finish to order, strategic planning, production planning, forecasting of production requirements, master production scheduling, inventory management for dependent and independent demand items, material requirements planning, capacity planning, logistics, Just-In-Time, total quality management, and production management. Discussion of how to prepare for APICS certification exams are also included.

**Prereq:** IS 215, DS 265, and POM 374.

**POM 476 Production and Inventory Control II.** 3 hrs
An in-depth quantitative and qualitative analysis of various production planning and control problems in manufacturing and service organizations. Topics include forecasting of demand, aggregate production planning, master production scheduling, production-to-order vs. production-to-stock scheduling, and large-project planning and scheduling. The role of management science and computer models in solving these problems is also reflected in the course.

**Prereq:** IS 215, DS 265, and 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.

**POM 487 Cooperative Education.** 3 hrs
Four months of full-time employment at a business or public organization to impart a practical experience in production/operations management disciplines. Credit/no credit basis for general elective credit only. Admission by application only.

**Prereq:** POM 387. Department permission.

**POM 489 Internship.** 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 total 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

Nick Blanchard
Acting Department Head
466 Gary M. Owen Building
487-3240


Associate Professors: Pradeep Chowdhry, Robert P. Crowner, Jagdish Danak, David Victor

Assistant Professors: Jean Bush-Bacelis, Deborah Ettington, Jack Nightingale

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 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.

Advising Coordinator: Nick Blanchard

Details on the department's innovative Master of Science degree in human resource management/organization development (HRM/OD) are available in the Graduate Catalog.

ACADEMIC MAJORS

GENERAL BUSINESS MAJOR

The major in general business has been designed for students seeking a broad business background rather than specialization in any one functional area of business. The program for the general business major includes a minimum of 124 semester hours for graduation as stipulated in the catalog.

Practical arts .................................................. 57

Management major (for non-business majors) .................. 21

Required courses ........................................... 9

ACC 240-241 Principles of Accounting I-II ................... 6

LAW 293 Legal Environment of Business ..................... 3

Restricted electives ......................................... 12

Choose four courses from the following:

FIN 350 Principles of Finance, FIN 354 Investments
IS 215 End-User Computing
LAW 393 Law of Business Enterprises
MGT 202 Business Communications, MGT 386 Organizational Behavior and Theory, MGT 388 Introduction to Entrepreneurship, MGT 402 Business Report Writing, MGT 403 Managerial Communication: Theory and Application

MKT 360 Principles of Marketing

MGT 215 End-User Computing, POM 374 Introduction to Production/Operations Management, POM 390 Management Systems

MANAGEMENT COURSES

MGT 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.

MGT 202 Business Communications. 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: CTA 121/124 and ENG 121.

MGT 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.

MGT 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.

MGT 386 Organizational Behavior and Theory. 3 hrs
The study of behavioral problems in administration. Individual, group, intergroup, and organizational behavior under dynamic environment conditions.

MGT 387 Cooperative Education. 3 hrs
Four months of full-time employment at a business or public organization in a management position chosen for imparting a practical experience in management. Use on a management major or minor is permitted. Graded credit/no credit. Admittance by application only.
Prereq: Completion of three hours in management.

MGT 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.

MGT 390 Introduction to Strategic Management. 3 hrs
A study of the environment in which managers operate, using cases and exercises. The development of decision making and other analytical skills.
Prereq: MGT 386 and FIN 350 (FIN 350 may be taken concurrently).

MGT 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. Concepts, their illustrations, and applications. The creative and functional aspects in understanding the problem, gathering, and organizing data, and presenting reports for management, employees, and the public.
Prereq: MGT 202.

MGT 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: MGT 202, MGT 386 or department permission.

MGT 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: MGT 384 and MGT 386.

MGT 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: MGT 386 or department permission.

MGT 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.

MGT 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.

MGT 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: MGT 384 and MGT 386 or department permission.

MGT 483 Staffing Organizations. 3 hrs
The staffing of organizations; skills needed in human resource planning, recruitment, job analysis, selection techniques, and evaluation.
Prereq: MGT 384.

MGT 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: MGT 384 and MGT 386 or department permission.

MGT 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: MGT 384 or department permission.
MGT 486 Organizational Development. 3 hrs
A practical approach to organizational renewal, or the strategies used to effect change in organizations operating under dynamic conditions, including the role of the change agent.
Prereq: MGT 386 or department permission.

MGT 487 Cooperative Education. 3 hrs
Four months of full-time employment at a business or public organization in a management position chosen for imparting a practical experience in management. Use on a management major or minor not permitted. Credit/no credit. Admittance by application only.
Prereq: MGT 387. Department permission.

MGT 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.

MGT 489 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 semester hours, but may be counted for elective credits only (not as part of the 50-hour business major). Graded credit/no credit.
Prereq: Department permission.

MGT 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).

MGT 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: MGT 202 or department permission.

MGT 495 International Management. 3 hrs
Comparisons of management concepts, processes, and practices in various countries with their different educational, sociological, legal-political, and cultural constraints. The evolution of management and the transfer of managerial philosophy and practices to other countries.
Prereq: MGT 386 and senior standing or department permission.

MGT 496 Current Issues in Human Resource Management. 3 hrs
A practical application of personnel management techniques to actual current business issues; specially designed workshop-type sessions for prospective managers, supervisors, and personnel specialists.
Prereq: MGT 384 and 3 hours of HRM courses.

MKT 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

H. Robert Dodge
Department Head
469 Gary M. Owen Building
487-3323

Associate Professors: Albert W. Belskus, Sandra J. Defebaugh, G. Russell Merz, C. Wayne Weeks
Assistant Professors: Daryl L. Barton, Elizabeth A. Edwards, Judy Foster-Davis, Steven Otteson, Harash Sachdev, 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

Minors:
- Marketing
- Real Estate

Concentrations:
- 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 (MBA) degree. The MBA degree program and courses are described in the Graduate Catalog.

ACADEMIC MAJOR

MARKETING MAJOR

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 semester hours for graduation.

Sem hours

Practical arts ................................................................. 57
Requirements (business administration core, see College of Business section). ................................................. 24
Required courses ......................................................... 15
MKT 261 Contemporary Selling ................................... 3
MKT 365 Buyer Behavior ............................................. 3
MKT 368 Marketing Strategy ......................................... 3
MKT 470 Marketing Research ....................................... 3
MKT 475 Marketing Planning and Management ............ 3
Restricted electives ..................................................... 9

Assistant Professors: H. Robert Dodge, Sam D. Fullerton,
Choose one of the following suggested concentrations or any nine-hour combination of marketing electives:

The advertising and sales promotion concentration prepares students for positions leading to careers as account executives, sales promotion managers, and advertising managers.

MKT 369 Advertising ........................................... 3
MKT 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 describes international trade, foreign exchange, comparative advantage, and marketing opportunity assessment. Course work in a foreign language is suggested.

MKT 375 International Business Transactions .......... 3
MKT 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.

MKT 364 Logistics and Materials Management ........... 3
MKT 374 Business to Business Marketing ................ 3
MKT 464 Purchasing 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.

MKT 365 Retailing ............................................. 3
MKT 369 Advertising ........................................... 3
MGT 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.

MKT 374 Business to Business Marketing ................ 3
MKT 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

ACADEMIC MINORS

MARKETING MINOR

Students who are not majors in the College of Business may elect to minor in marketing.

Minor in marketing (for non-business majors) ............ 21

Required courses ............................................ 9
ACC 240 Principles of Accounting I ....................... 3
MKT 360 Principles of Marketing .......................... 3
MGT 386 Organizational Behavior and Theory .......... 3

2. Restricted electives ....................................... 12
Choose 12 credits from marketing courses.

REAL ESTATE MINOR

Minor in real estate (for non-business majors) .......... 21

Required courses ............................................ 12
ACC 240 Principles of Accounting I ....................... 3
RES 210 Real Estate Principles and Practices ............ 3
RES 310 Real Estate Finance ................................ 3
RES 340 Real Estate Investments .......................... 3
Restricted electives .......................................... 9
FIN 350 Principles of Finance .............................. 3
RES 320 Real Estate Appraisal, RES 420 Real Estate Mktg, RES 430 Real Estate Property Management, RES 450 Property Development and Management

MARKETING COURSES

MKT 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.

MKT 261 Contemporary Selling. ............................ 3 hrs
The basic principles of personal selling applicable to any product and/or service; professional attitudes and performance.

MKT 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.

MKT 287 Cooperative Education. .......................... 3 hrs
Four months of full-time employment at a business or public organization in a marketing position. General elective credit only. Credited only.
Prereq: Department permission.

MKT 360 Principles of Marketing. .......................... 3 hrs
Marketplace exchanges; the relationship between marketing activities of the organization and the consumer.

MKT 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: MKT 360.

MKT 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: MKT 360.

MKT 365 Buyer Behavior. .............................. 3 hrs
Concepts and research related to consumer and industrial buyer behavior. Sociological and psychological aspects of consumer and industrial buyer behavior, product adoption and diffusion, and purchasing decision-making.
Prereq: MKT 360 and PSY 101.

MKT 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: MKT 360 and ACC 240.
**MKT 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 promotional efforts; planning creative strategy; effective execution of promotional programs; measuring the results of promotional efforts.  
*Prereq: MKT 360.*

**MKT 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: MKT 360.*

**MKT 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: MKT 360.*

**MKT 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.*

**MKT 387 Cooperative Education.** 3 hrs  
Four months of full-time 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.*

**MKT 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: MKT 360.*

**MKT 461 Sales Management.** 3 hrs  
Planning, organizing, directing, and controlling the sales force. Recruiting, selecting, training, evaluating, compensating, and supervising.  
*Prereq: MKT 261 and MKT 360.*

**MKT 464 Purchasing Management.** 3 hrs  
Planning, organizing, directing, and controlling the purchasing function. Purchasing systems, forms, and procedures; selecting sources of supply; inventory control; transportation; legal aspects of purchasing; purchasing research, planning, and budgeting.  
*Prereq: MKT 360 and FIN 350.*

**MKT 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: MKT 360 and DS 265.*

**MKT 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: MKT 360.*

**MKT 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: MKT 369.*

**MKT 475 Marketing Planning and Management.** 3 hrs  
Integration of concepts from previous marketing courses and planning the marketing program.  
*Prereq: MKT 368 and marketing major with senior standing or department permission.*

**XX 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.*

**MKT 487 Cooperative Education.** 3 hrs  
Four months of full-time employment at a business or public organization in a marketing position. General elective credit only.  
*Credit/no credit.*  
*Prereq: MKT 387. Department permission.*

**MKT 489 Internship.** 3 hrs  
Approved marketing projects with business or non-profit organizations.  
*Prereq: Marketing major and department permission.*

**MKT 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.*

**LAW COURSES**

**LAW 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.*

**LAW 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.*

**LAW 293 Legal Environment of Business.** 3 hrs  
The judicial system and legal procedure, crimes and torts, contractual arrangements, sales of goods, and other transactions under the Uniform Commercial Code.  
*Prereq: LAW 293.*

**LAW 295 Legal Research.** 3 hrs  
The performance of research on several actual legal problems.  
*Prereq: LAW 293.*

**LAW 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.*

**LAW 393 Law of Business Enterprises.** 3 hrs  
The law of forms of business enterprise and negotiable instruments. Agency, partnerships, corporations, and negotiable instruments.  
*Prereq: LAW 293 or department permission.*

**LAW 403 Employment Law.** 3 hrs  
The legal framework within which business (or public) managers must make employment and labor relations decisions; includes laws relative to labor relations, discrimination, affirmative action,
LAW 435 Law and Marketing. 3 hrs
The influence of law on decision-making in marketing; antitrust and consumer protection issues.
Prereq: MKT 360 and LAW 293.

LAW 455 Real Estate Law. 3 hrs
Legal principles involved in real estate. Evidence of title, deeds, financing, legal position of brokers, leases, zoning, real estate taxes.
Prereq: LAW 293 or RES 210.

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 497/498/499 Independent Study. 1/2/3 hrs
Directed study of a problem in business law not otherwise treated in department courses.
Prereq: Senior standing and department permission.

REAL ESTATE COURSES

RES 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.

RES 210 Real Estate Principles and Practices. 3 hrs
Survey of real estate marketing, valuation, financing, contracts, closings, investing, land descriptions, rights and interests, fair housing, taxes, leases, forms of ownership, land use and planning, and careers in real estate.

RES 277/278/279 Special Topics. 1/2/3 hrs
Specialized real estate topics in relation to changes in regulations by government agencies.
Prereq: RES 210. Department permission.

RES 310 Real Estate Finance. 3 hrs
Real estate financing techniques, legal nature, alternative mortgage instruments, main sources of real estate credit, loan underwriting procedures, the integration of financing techniques to maximize investment goals, and analytical procedures.
Prereq: RES 210 and FIN 350 or department permission.

RES 320 Real Estate Appraisal. 3 hrs
Issues in real estate investment analysis, market research, forecasting cash flows, income tax considerations, measurement of investment performance, risk analysis and control, and real estate securities.
Prereq: FIN 350 or department permission.

RES 340 Real Estate Investments. 3 hrs
Issues in real estate investment analysis, market research, forecasting cash flows, income tax considerations, measurement of investment performance, risk analysis and control, and real estate securities.
Prereq: FIN 350 or department permission.

RES 377/378/379 Special Topics. 1/2/3 hrs
Case analysis of issues in real estate.
Prereq: RES 210. Department permission.

RES 387 Cooperative Education. 3 hrs
Four months of full-time employment at a business or public organization in a real estate position chosen for imparting a practical experience in real estate. Use on a real estate major or minor not permitted. Credit/no credit. Admission by application only.
Prereq: Completion of six hours in real estate. Department permission.

RES 420 Real Estate Marketing. 3 hrs
Development of marketing skills, communication, motivation, dealing with objections, sales process, presentations, advertising, qualifying, product knowledge, negotiating, sales organization, and technical aspects of selling.
Prereq: RES 210.

RES 430 Real Estate Property Management. 3 hrs
Managing residential, commercial and industrial rental properties including houses, apartments, offices, stores, shopping centers, farm properties, and special purpose properties. Merchandising space, tenant selection, tenant relations, maintenance, owner relations, and open housing laws.
Prereq: RES 210.

RES 450 Property Development and Management. 3 hrs
Market analysis and planning for land developments for various types of uses: residential, campus, civic centers, resorts, mobile home parks, offices, professional office parks, housing for the elderly, urban renewal, shopping centers.
Prereq: RES 310 or department permission.

RES 477/478/479 Special Topics. 1/2/3 hrs
Emerging topics in the field of real estate.
Prereq: RES 210. Department permission.

RES 487 Cooperative Education. 3 hrs
Four months of full-time employment at a business or public organization in a real estate position chosen for imparting a practical experience in real estate. Use on a real estate major or minor not permitted. Credit/no credit. Admission by application only.
Prereq: RES 387. Department permission.

RES 497/498/499 Independent Study. 1/2/3 hrs
Directed study of a problem or group of problems in real estate.
Prereq: Department permission.
COLLEGE OF EDUCATION

Jerry Robbins, Dean  
Robbie Johnson, Associate Dean  
Donna Schmitt, Associate Dean  
117 Boone Hall  
487-1414

DEPARTMENTS

Health, Physical Education, Recreation, and Dance  
Leadership and Counseling  
Special Education  
Teacher Education
THE PROFESSIONAL EDUCATION PROGRAMS OF EASTERN MICHIGAN UNIVERSITY

APPLICABILITY

The curricula and academic policies contained in this portion of the catalog are applicable to students who were admitted to the professional education program for the initial preparation of teachers (the teacher education program) on or after the effective date of this catalog.

Persons admitted to the teacher education program under the provisions of an earlier catalog may continue to follow the curriculum and academic policies of the earlier catalog, except in such cases as a state-imposed policy (e.g., testing), expiration of a time limit, courses/programs no longer being offered, etc. However, students falling under the provisions of an earlier catalog are encouraged to change to and to follow the provisions of this catalog or its successors.

AUTHORITY

The curricula and academic policies contained in this catalog have been established under the EMU procedures for faculty input and administrative action. Extensive effort has been made to insure that the curricula and academic policies contained herein are in conformity with requirements of the National Council for the Accreditation of Teacher Education, the state of Michigan, the Michigan Department of Education, the Board of Regents of Eastern Michigan University, policies and processes of Eastern Michigan University, and, in a number of instances, discipline-based accrediting bodies and professional associations.

It is not necessarily the case that other EMU materials (e.g., older catalogs, departmental/program handout materials) are in conformity with the curricula and academic policies described in the previous paragraph. Therefore students subject to the provisions of this catalog must consider this portion of the catalog as the authoritative source of information.

AMENDMENT

As this document is used, technical errors may be found and corrected. It is possible that substantive changes may be made and implemented before the next editions of either or both the Undergraduate Catalog or Graduate Catalog are issued.

The University reserves the right to change fees, courses, policies, programs, services, and personnel as required. The official, amended edition of the curriculum and academic policy portions of this catalog is maintained in the Office of the Dean of the College of Education. An informational copy, accessible to students, faculty, and staff, is maintained in the Office of Student Teaching, College of Education.

TRANSFER STUDENTS

Many of the curricular and academic policy provisions of this catalog are stated as though the student took all work at Eastern Michigan University. It is recognized that many students have course work from other institutions. Inquiries about the possible application of some or all work from other institutions to an undergraduate program of study at Eastern Michigan University should be directed to the Office of Records and Registration, where they will be addressed in conformity with EMU policies on transfer work. Inquiries about the possible application of some or all work from other institutions to a graduate program of study at EMU should be directed to the graduate coordinator in the department in which the program is housed.

EXCEPTIONS

By policy of the College of Education Council, covering matters related to all professional education programs and, in addition, all other programs offered by the College of Education, requests for exceptions to academic policy (e.g., admission, retention, exit requirements) and for exceptions to curricular requirements are to be processed through administrative channels.

In particular, a request for an exception should be discussed with the academic adviser, reviewed and approved by the appropriate department head, and reviewed and approved by the Dean of the College of Education (or his designee). From there, depending on the nature of the request for exception, it may be reviewed as necessary by other administrators, and, if approved at all levels, transmitted to the appropriate office for use at the time of graduation audit and/or request for recommendation for certification.

In general, there are few appropriate opportunities for exceptions to be made. Each component of a program is carefully designed to accomplish some particular purpose. Where options are available, they are identified in this document. Where options are not available, it is generally because requirements (local or external) do not permit other approaches.

INTERPRETATION

Any student, staff member, faculty member, or administrator may request an official interpretation of the provisions of this portion of the catalog. Such a request must be made, in writing, to the Dean of the College of Education. The Dean will advise the requester of the source of the policy or curriculum requirement in question. If the source is an authority other than EMU governance structure for professional education (e.g., Michigan Department of Education), the requester will be advised from whom the interpretation should be sought. If the source is the EMU governance structure for professional education, the Dean, in consultation with appropriate parties, will obtain and provide the requested interpretation.

RELATIONSHIP OF THIS DOCUMENT TO OTHER MODES OF WRITTEN AND ORAL ADVICE

Students to whom the provisions of this catalog are applicable (see above) must understand that, in the event of inconsistency between (a) oral advice (e.g., conversation with a faculty or staff member) or informal written advice (e.g., an advising form, a brochure, a letter) and (b) the provisions of this catalog, the provisions of this catalog are the ones that govern the situation.

Given the size and complexities of the professional education programs of Eastern Michigan University, the complicated interactions between university programming and external authorities, the rapid change that is occurring to keep EMU professional education programming on "the cutting edge," and other such factors, it is virtually impossible for any single faculty member to be completely and fully informed on every matter that might be raised.

Faculty and staff members make every effort to be helpful to students and departmental/program materials are intended to inform. Even so, none of these sources is infallible, especially in complicated situations.

Thus there is the need for a single, authoritative source of information about professional education curricula and academic policy on which the entire EMU community can draw and in which all can have confidence. This portion of the catalog is intended to serve that purpose.

THE GOVERNANCE OF PROFESSIONAL EDUCATION

As a member of The Renaissance Group, Eastern Michigan University is committed to the principle that teacher preparation is a campus-wide responsibility. Many EMU organizational entities are involved with services to prospective teachers (and other professional personnel) and teacher (and other professional personnel) preparation program delivery. Several established faculty bodies are charged with roles involving curriculum and academic policy issues.
University Council on Teacher Education

The University Council on Teacher Education (UCTE) is charged, under its governing document, with the coordination of initial teacher preparation. The UCTE is composed of elected faculty members from four academic colleges, each representing one or more program areas in which the institution prepares beginning teachers; students; and major administrators of the teacher education program. The determinations of the UCTE are made as recommendations to the dean of the College of Education.

The College of Education Council (COE Council) is composed of elected members of the faculty of the College of Education. UCTE recommendations are forwarded by the dean of the College of Education, usually with his independent recommendation, to the COE Council for its review. Positive recommendations are forwarded through the dean of the College of Education to the Office of the Provost/Vice President for Academic Affairs for further review and approval.

All matters related to the advanced preparation of teachers and related to the preparation of all other types of educational personnel (e.g., principals, counselors) are submitted directly to the COE Council for its review. Its determinations are forwarded through the dean of the College of Education to the Office of the Provost/Vice President for Academic Affairs.

Central Institutional Structures

An item approved by the College of Education Council and also approved by the dean of the College of Education is transmitted to the Office of the Provost and Vice President for Academic Affairs. From there, the routing to obtain closure on the item, depending on the nature of the item, might be to one or more of several different entities, including the Faculty Council, the Graduate School, the Board of Regents, etc. The policies, procedures, minutes, etc. of these various structures are available through the executive officer of the body or the relevant Eastern Michigan University administrator.

GENERAL INFORMATION APPLICABLE TO ALL PROSPECTIVE TEACHERS

Eastern Michigan University is authorized and approved by the Michigan Department of Education and accredited by the National Council for Accreditation of Teacher Education to prepare the following types of teachers. Successful completion of the appropriate program of studies leads to a recommendation for the Michigan provisional certificate.

Elementary

Several approaches for establishing eligibility for recommendation for certification as an elementary teacher are offered. One approach includes the coursework 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, chemistry, computer science, earth science, economics, English, French, general science, geography, German, history, industrial arts, industrial-vocational education, mathematics, physics, political science, psychology, social science, sociology, Spanish, and speech. 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, Japanese language and culture, music, and physical education. See the curricula for these K-12 programs.

Special Education

In general, one must complete requirements for becoming an elementary or secondary teacher prior to or simultaneously with completing additional requirements for becoming a special education teacher. At the baccalaureate level, EMU prepares special education teachers in the areas of emotionally impaired, hearing impaired, mentally impaired, physically and otherwise health impaired, and visually impaired. 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, coursework leading to eligibility for recommendation for a certification endorsement is available in such fields as astronomy, bilingual Spanish, health, vocational business education, and vocational home economics.

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.

Application for admission to the teacher education program should occur immediately after the semester in which the student has earned 56 semester hours of credit. Transfer students with more than 56 semester hours should apply immediately after the semester in which they have earned 12 semester 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 Office of Student Teaching, 101 Boone Hall.

Criteria

Criteria for admission to and continuance in the teacher education program are:

1. A minimum EMU overall grade point average of at least 2.50 and at least 2.50 in the major (secondary and where applicable, elementary) or three minors (elementary). As an alternative to the overall 2.50 GPA requirement, an applicant may substitute either of the following:
   a. Complete 24 credit hours of undergraduate work in Michigan-approved substantive fields at Eastern Michigan University and earn a GPA of 2.50 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 may not enroll in courses for which admission to the teacher education program is a prerequisite before the 24 hours are completed. Courses to be included in the 24 hours must either: (i) be taken after submission of the application for entrance to the teacher education program or (ii) be completed no earlier than 12 months prior to the approval for admission.
   b. 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. Complete all prerequisite courses for which admission to the teacher education program is a prerequisite before the 24 hours. are completed.

3. Complete satisfactory college preparatory coursework in the content area(s) he/she plans to teach. Students are encouraged to complete the college preparatory coursework as an undergraduate student; however, in some cases, these courses may be completed subsequent to admission to the teacher education program.

4. Complete an Entrance Interview with an adviser in the Teacher Education Program.

5. Be recommended for admission to the program by the faculty of the School of Teacher Education.

6. A minimum overall grade point average of 2.50 and at least 2.50 in the major (secondary and where applicable, elementary) or three minors (elementary) is required for continuance in the teacher education program. A minimum 2.50 GPA is required for continuance in the teacher education program. At least one half of the credits must be in the student’s major or minor(s) which he/she expects to teach. Students may not enroll in courses for which admission to the teacher education program is a prerequisite before the 24 hours are completed. Courses to be included in the 24 hours must either: (i) be taken after submission of the application for entrance to the teacher education program or (ii) be completed no earlier than 12 months prior to the approval for admission.

7. Complete satisfactory college preparatory coursework in the content area(s) he/she plans to teach. Students are encouraged to complete the college preparatory coursework as an undergraduate student; however, in some cases, these courses may be completed subsequent to admission to the teacher education program.

8. Complete an Entrance Interview with an adviser in the Teacher Education Program.

9. Be recommended for continuation in the program by the faculty of the School of Teacher Education.

10. Complete all prerequisite courses for which admission to the teacher education program is a prerequisite before the 24 hours are completed.

11. A minimum overall grade point average of 2.50 and at least 2.50 in the major (secondary and where applicable, elementary) or three minors (elementary) is required for continuation in the teacher education program. A minimum 2.50 GPA is required for continuation in the teacher education program. At least one half of the credits must be in the student’s major or minor(s) which he/she expects to teach. Students may not enroll in courses for which admission to the teacher education program is a prerequisite before the 24 hours are completed. Courses to be included in the 24 hours must either: (i) be taken after submission of the application for entrance to the teacher education program or (ii) be completed no earlier than 12 months prior to the approval for admission.

12. Complete satisfactory college preparatory coursework in the content area(s) he/she plans to teach. Students are encouraged to complete the college preparatory coursework as an undergraduate student; however, in some cases, these courses may be completed subsequent to admission to the teacher education program.

13. Complete an Entrance Interview with an adviser in the Teacher Education Program.

14. Be recommended for continuation in the program by the faculty of the School of Teacher Education.

15. Complete all prerequisite courses for which admission to the teacher education program is a prerequisite before the 24 hours are completed.

16. A minimum overall grade point average of 2.50 and at least 2.50 in the major (secondary and where applicable, elementary) or three minors (elementary) is required for continuance in the teacher education program. A minimum 2.50 GPA is required for continuance in the teacher education program. At least one half of the credits must be in the student’s major or minor(s) which he/she expects to teach. Students may not enroll in courses for which admission to the teacher education program is a prerequisite before the 24 hours are completed. Courses to be included in the 24 hours must either: (i) be taken after submission of the application for entrance to the teacher education program or (ii) be completed no earlier than 12 months prior to the approval for admission.

17. Complete satisfactory college preparatory coursework in the content area(s) he/she plans to teach. Students are encouraged to complete the college preparatory coursework as an undergraduate student; however, in some cases, these courses may be completed subsequent to admission to the teacher education program.

18. Complete an Entrance Interview with an adviser in the Teacher Education Program.

19. Be recommended for continuation in the program by the faculty of the School of Teacher Education.
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 basic studies requirements; and successful completion of the state-mandated basic skills test.
   c. written expression as determined by successful completion of all basic studies requirements, a review of an autobiography submitted as 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 basic studies 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).

PRE-STUDENT TEACHING FIELD EXPERIENCES

Robbie A. Johnson
Director

The pre-student 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.

A minimum of 100 clock hours of approved pre-student teaching field experiences are 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. By the end of the pre-student teaching field experience, the student should be able to:

1. describe some of the major issues confronting the school in society;
2. describe the organization and operation of a public school;
3. explain some classroom management skills;
4. understand how students in the public schools behave and learn;
5. describe some teaching methods and teaching behaviors;
6. make a valid decision concerning teaching as a career.

Students may and should complete the pre-student teaching experience early in their college career. Students should identify a pre-student teaching field assignment that includes a wide range of experiences with students from different socio-economic levels and cultures. The teaching activity selected must be approved by the instructor of CUR304, CUR305, EDP 322, SFD 328, or RDG 314.

Majors in special education should consult their advisers or the pre-student teaching director concerning overlapping preclinical requirements.

STUDENT TEACHING

Robbie A. Johnson
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 semester 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 semester hours of student teaching with non-impaired children and an additional ten semester hours of student teaching in their area of specialization.

Students desiring certification in bilingual education are required to fulfill six semester hours of student teaching with English-speaking children and an additional six semester hours of student teaching in bilingual education.

Application Deadlines

Applications for student teaching may be obtained from the Student Teaching Office, 101 Boone Hall, and should be completed and returned to the Student Teaching 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 pre-student teaching field experience.
2. Demonstrate minimum levels of skills in reading, written English, and mathematics as defined and measured by the state-mandated basic skills test.
3. Demonstrate competence in the teaching field(s) through a satisfactory score on state-mandated subject area test(s), if required by the state.
4. Provide written recommendations from course instructors and field supervisors demonstrating a minimum level of skill in working with students. These become a part of the student teacher's file.
5. Have a positive recommendation from the designated representative of the department in which the major is located.
6. Register in the appropriate student teaching course (see course descriptions).
7. 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 by the director of student teaching for more than 15 semester 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. CUR 304 Curriculum and Methods (Elementary) or CUR 305 Curriculum and Methods (Secondary and K-12)
2. EDP 322 Human Development and Learning (all except Special Education) or EDP 325 Life Span Human Growth and Development (Special Education)
3. SFD 328 Social Aspects of Teaching
4. Secondary and K-12: the appropriate special methods course in the major or minor field.
5. Elementary: RDG 314 Teaching Reading in the Elementary School and MTH 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 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 Student Teaching Office. Placement could be delayed a full semester in these cases.

A preferred student teaching placement will be accommodated by the Student Teaching Office 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.

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 (EDU 491 through EDU 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 EDP 322 or EDP 325, RDG 314, CUR 304, SFD 328, and MTH 381 (or appropriate substitutions).

Secondary—Completion of EDP 322, CUR 305, SFD 328, and completion of the special methods course in the major or minor (or appropriate substitutions).

COLLEGE OF EDUCATION COURSES

EDU 490 Student Teaching. 8 hrs
EDU 491 Student Teaching. 10 hrs
EDU 492 Student Teaching. 12 hrs
EDU 493 Student Teaching. 2 hrs
For experienced, certified teachers. Prereq: Permission from student teaching office.
EDU 494 Student Teaching. 3 hrs
For experienced, certified teachers. Prereq: Permission from student teaching office.
EDU 495 Student Teaching. 4 hrs
Prereq: Permission from student teaching office.
EDU 496 Student Teaching. 6 hrs
Prereq: Permission from student teaching office.
EDU 497 Student Teaching. 6 hrs
Prereq: Credit toward certification in either EDU 496 or EDU 499.
EDU 498 Student Teaching. 5 hrs
Prereq: Credit toward certification in either EDU 496 or EDU 499.
EDU 499 Student Teaching. 6 hrs
Prereq: Permission from student teaching office.

ELEMENTARY AND EARLY CHILDHOOD

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 Basic Studies, (2) an appropriately chosen major and minor (or three minors), and (3) a required group of professional education courses. See page 227 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 semester 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."

**APPROVED MAJORS FOR THE ELEMENTARY PROGRAM**

Art ................................................................................. p. 54
Arts Group (not available with art major or with music major) ......................... p. 280
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**CURIricula FOR SECONDARY (JUNIOR-Senior 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 Basic Studies, (2) an appropriately chosen major and (except where noted below) minor, (3) and a required group of professional education courses. See page 281 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 semester 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.

The teaching majors offered by Eastern Michigan University consist of:

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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 semester hours of college credit with an EMU grade point average of 2.50 or better.
2. Completion of SGN 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: SEI 301 Emotionally Impaired Children and Adolescents.
   b. Hearing impaired: (see statement under Hearing Impaired).
   c. Mentally impaired: SMI 350 Introduction to Mental Retardation.
   d. Physically and otherwise health impaired: SPI 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:
   - Fall semester: February 15
   - 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, and membership in the underrepresented gender.

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. All 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 two courses may be repeated. Students will not be able to enroll in courses at the management level or above until this requirement is met. Students must remain in their planned tracks if they are required to repeat. This implies ineligibility to take advanced SLP courses for 1 or 2 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**

Field work in both general and special education is required. Pre-student teaching experiences are required of all candidates pursuing a teaching certificate. (See Pre-Student Teaching, page 227.) Majors 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 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 either an elementary or secondary special education endorsement except in the area of speech and language impaired. The speech and language impaired program is a 5-year MA degree program in which K-12 endorsement is granted.

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.

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| Mentally Impaired (Elementary) | p. 266 |
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**SPECIAL METHODS COURSES FOR SPECIAL EDUCATION/SECONDARY PROGRAMS**

<table>
<thead>
<tr>
<th>MINOR/METHOD COURSE(S)</th>
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</thead>
<tbody>
<tr>
<td>Art—FA 317 (2) and FA 416 (2)</td>
</tr>
<tr>
<td>Astronomy—PHY 325 (3)</td>
</tr>
<tr>
<td>Bilingual-Bicultural Education Spanish-English—FLA 422 (3)</td>
</tr>
<tr>
<td>Biology—BIO 403 (3)</td>
</tr>
<tr>
<td>Chemistry—PHY 325 (3)</td>
</tr>
</tbody>
</table>

Communication Minor for Elementary and Special Education Students—CTA 307 (3)
Computer Science—CSC 346 (3)
Earth Science—GES 347 (3)
Economics—HIS 481 (3)
English Language and Literature—ENG 308 (3)
French Language—FLA 411 (3)
German Language—FLA 411 (3)
Geography—HIS 481 (3)
Geology—GES 347 (3)
Group Minor in Social Science—HIS 481 (3)
Health—PED 367 (3)
History—HIS 481 (3)
Mathematics—MTH 304 or MTH 306 (3)
Physical Education—PED 367 (3)
Physical Education for Special Education Majors (available only to special education majors)—PED 367 (3)
Physics—PHY 325 (3)
Political Science—HIS 481 (3)
Psychology—HIS 481 (3)
Sociology—HIS 481 (3)
Spanish Language—FLA 411 (3)
TEACHING MAJORS AND MINORS IN THE COLLEGE OF ARTS & SCIENCES

ART

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487-1268

TEACHING MAJORS

CURRICULUM FOR FINE ARTS PLUS TEACHER CERTIFICATION AND CURRICULUM FOR ART EDUCATION

K-12 TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in art, certification code “LK.” The certification test covering this field is #41, “Art Education.” See page 53.

ART MAJOR

K-12 TEACHER CERTIFICATION

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in art, certification code “LK.” The certification test covering this field is #41, “Art Education.” See page 54.

TEACHING MINOR

ART MINOR

ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in art, certification code “LK.” The certification test covering this field is #41, “Art Education.” See page 54.

BIOLOGY

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487-4242

TEACHING MAJORS

BIOLOGY MAJOR

ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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.” See page 62.

BIOLOGY MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in biology, certification code “DA,” and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the National Science Teachers Association. The certification test covering this field is #17, “Biology.” See page 62.

TEACHING MINOR

BIOLOGY MINOR

ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in biology, certification code “DA.” The certification test covering this field is #17, “Biology.” See page 62.

CHEMISTRY

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487-0106

TEACHING MAJOR

CHEMISTRY MAJOR

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in chemistry, certification code “DC,” and, depending on the minor selected, an additional endorsement. The certification test covering this field is #18, “Chemistry.” See page 72.

TEACHING MINOR

CHEMISTRY MINOR

SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in chemistry, certification code “DC.” The certification test covering this field is #18, “Chemistry.” See page 73.
COMMUNICATION AND THEATRE ARTS

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TEACHING MAJOR

COMMUNICATION MAJOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in speech, certification code "BD," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #04, "Speech." See page 82.

COMMUNICATION MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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." See page 82.

TEACHING MINORS

COMPREHENSIVE MINOR IN COMMUNICATION AND THEATRE ARTS
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in speech, certification code "BD." The certification test covering this field is #04, "Speech." See page 83.

COMMUNICATION MINOR
ELEMENTARY, SPECIAL EDUCATION-ELEMENTARY, K-12, AND SPECIAL EDUCATION-K-12 TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in speech, certification code "BD." The certification test covering this field is #04, "Speech." See page 82.

Drama/Theatre for the Young Minor
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in speech, certification code "BD." The certification test covering this field is #04, "Speech." See page 83.

COMPUTER SCIENCE

George E. Haynam
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TEACHING MAJOR

COMPuter SCIENCE MAJOR
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in computer science, certification code "NR," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #50, "Computer Science." See page 90.

TEACHING MINOR

COMPuter SCIENCE MINOR
SECONDARY TEACHER CERTIFICATION

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." See page 91.

ECONOMICS

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487-3395

TEACHING MAJOR

ECONOMICS MAJOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in economics, certification code "CA" and, depending on the minor selected, endorsement in geography ("CB"), history ("CC"), political science ("CD"), psychology ("CE"), sociology ("CF"), or social science ("CX"). The certification test covering this field is #07, "Economics." See page 95.

TEACHING MINOR

ECONOMICS MINOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in economics, certification code "CA." The certification test covering this field is #07, "Economics." See page 95.
ENGLISH LANGUAGE AND LITERATURE

Marcia A. Dalbey
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487-4220

TEACHING MAJORS

ENGLISH AND AMERICAN LANGUAGE AND LITERATURE GROUP MAJOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in English, certification code "BA," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #02, "English." See page 103.

ENGLISH AND AMERICAN LANGUAGE AND LITERATURE GROUP MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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." See page 103.

TEACHING MINORS

ENGLISH AND AMERICAN LANGUAGE AND LITERATURE GROUP MINOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in English, certification code "BA." The certification test covering this field is #02, "English." See page 104.

CHILDREN'S LITERATURE MINOR
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in English, certification code "BA." The certification test for "English" is #02, "English." However, the student is advised that there is no test in children's literature and that the test in English covers material not included in this curriculum. See page 104.

FOREIGN LANGUAGE AND BILINGUAL STUDIES

Steven D. Kirby
Department Head
219 Alexander
487-0130

TEACHING MAJORS

FRENCH MAJOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in French, certification code "FA," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #23, "French." See page 116.

FRENCH MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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." See page 116.

GERMAN LANGUAGE AND LITERATURE MAJOR
SECONDARY TEACHER CERTIFICATION

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." See page 116.

GERMAN LANGUAGE AND LITERATURE MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for endorsement in German, certification code "FB," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #24, "German." See page 116.

JAPANESE LANGUAGE AND CULTURE MAJOR
K-12 TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in Japanese, certification code "FL." The certification test covering this field has not yet been developed. See page 117.

JAPANESE LANGUAGE AND CULTURE TEACHING MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in Japanese language and culture, certification
code "FL." The certification test covering this field has not yet been developed. See page 117.

**SPANISH MAJOR**
**SECONDARY TEACHER CERTIFICATION**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in Spanish, certification code "FF," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #28, "Spanish." See page 118.

**SPANISH MAJOR**
**ELEMENTARY TEACHER CERTIFICATION**

Successful completion of this major, 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." See page 118.

**TEACHING MINORS**

**FRENCH LANGUAGE MINOR**
**SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY CERTIFICATION**

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." See page 118.

**GERMAN LANGUAGE MINOR**
**SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY CERTIFICATION**

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." See page 118.

**SPANISH LANGUAGE MINOR**
**SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY CERTIFICATION**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in Spanish, certification code "FF." The certification test covering this field is #28, "Spanish." See page 119.

**BILINGUAL-BICULTURAL EDUCATION SPANISH-ENGLISH MINOR**
**ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in bilingual Spanish, certification code "FF." The certification test covering this field is #70, "Bilingual Spanish." See page 118.

**GEOGRAPHY AND GEOLOGY**

Andrew A. Nazzaro
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487-0218

**TEACHING MAJORS**

**EARTH SCIENCE MAJOR**
**SECONDARY TEACHER CERTIFICATION**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in earth science/geology, certification code "DH." The program includes a structured general science minor. The student following this program is also qualified for recommendation for endorsement in science, certification code "DX." The certification test covering this field is #16, "Science." See page 132.

**GEOGRAPHY MAJOR**
**SECONDARY TEACHER CERTIFICATION**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in geography, certification code "CB" and, depending on the minor selected, endorsement in economics ("CA"), history ("CH"), political science ("CD"), psychology ("CE"), sociology ("CF"), or social science ("CX"). The certification test covering this field is #08, "Geography." See page 133.

**GEOLOGY**
**ELEMENTARY TEACHER CERTIFICATION**

Successful completion of this major, 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." The student is also qualified for recommendation for endorsement in science, certification code "DX." The certification test covering this field is #16, "Science." See page 133.

**BILINGUAL-BICULTURAL EDUCATION SPANISH-ENGLISH MINOR**
**ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION**

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in bilingual Spanish, certification code "FF." The certification test covering this field is #70, "Bilingual Spanish." See page 118.

**GEOLOGY**
**ELEMENTARY TEACHER CERTIFICATION**

Successful completion of this major, 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." See page 134.
TEACHING MINORS

EARTH SCIENCE MINOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in geology/earth science, certification code "DH." The certification test covering this field is #20, "Geology/Earth Science." See page 134.

GEOGRAPHY MINOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in geography, certification code "CB." The certification test covering this field is #08, "Geography." See page 134.

GEOLGY MINOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in geology/earth science, certification code "DH." The certification test covering this field is #20, "Geology/Earth Science." See page 134.

HISTORY AND PHILOSOPHY

Margot L. Duley
Department Head
701 Pray-Harrold
487-1018

TEACHING MAJORS

HISTORY MAJOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in 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 science ("CX"). The certification test covering this field is #09, "History." See page 145.

HISTORY MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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." See page 146.

SOCIAL SCIENCE
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in social science, certification code "CX," and, depending on the minor selected, endorsement in economics ("CA"), geography ("CB"), history ("CC"), political science ("CD"), psychology ("CE"), or sociology ("CF"). The certification test covering this field is #06, "Social Studies." See page 146.

TEACHING MAJORS

HISTORY MAJOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in history, certification code "CC," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #09, "History." See page 145.

HISTORY MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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." See page 146.

SOCIAL SCIENCE GROUP MINOR (NOT AVAILABLE WITH THE SOCIAL SCIENCE MAJOR)
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in social science, certification code "CX." The certification test covering this field is #06, "Social Sciences." See page 147.

MATHEMATICS

Don R. Lick
Department Head
515 Pray-Harrold
487-1444

TEACHING MAJORS

MATHEMATICS MAJOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in mathematics, certification code "EX," and, depending on the minor selected, an additional endorsement. The certification test covering this field is #22, "Mathematics." See page 156.

MATHEMATICS MAJOR FOR THE ELEMENTARY TEACHING CERTIFICATE
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in mathematics, certification code "EX." The certification test covering this field is #22, "Mathematics." See page 157.
TEACHING MINORS

MATHEMATICS MINOR
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in mathematics, certification code "EX." The certification test covering this field is #22, "Mathematics." See page 157.

MATHEMATICS MINOR FOR THE ELEMENTARY TEACHING CERTIFICATE
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in mathematics, certification code "EX." The certification test covering this field is #22, "Mathematics." See page 157.

MUSIC

James B. Hause
Department Head
487-4380

TEACHING MAJORS

MUSIC EDUCATION (INSTRUMENTAL) MAJOR
K-12 TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in music education, certification code "JX." The certification test covering this field is #39, "Music Education." See page 164.

MUSIC EDUCATION (VOCAL) MAJOR
K-12 TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in music education, certification code "JX." The certification test covering this field is #39, "Music Education." See page 165.

MUSIC MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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." See page 165.

ELEMENTARY MUSIC EDUCATION MINOR
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in music education, certification code "JX." The certification test covering this field is #39, "Music Education." See page 165.

PHYSICS AND ASTRONOMY

Dan Trochet
Department Head
303 Strong Hall
487-4144

TEACHING MAJORS

GENERAL SCIENCE MAJOR—BIOLOGY MINOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in general science, certification code "DX," and biology, certification code "DA." The certification tests covering this field are #16, "Science," and #17, "Biology." See page 174.

GENERAL SCIENCE MAJOR—CHEMISTRY MINOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in general science, certification code "DX," and chemistry, certification code "DC." The certification tests covering this field are #16, "Science," and #18, "Chemistry." See page 174.

GENERAL SCIENCE MAJOR—EARTH SCIENCE MINOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in general science, certification code "DX," and geology/earth science, certification code "DH." The certification tests covering this field are #16, "Science," and #20, "Geology/Earth Science." See page 175.

GENERAL SCIENCE MAJOR—MATHEMATICS MINOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in general science, certification code "DX," and mathematics, certification code "EX."
The certification tests covering this field are #16, "Science," and #22, "Mathematics." See page 176.

**GENERAL SCIENCE MAJOR—PHYSICS MINOR**
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in general science, certification code "DX," and physics, certification code "DE." The certification tests covering this field are #16, "Science," and #19, "Physics." See page 177.

**PHYSICS MAJOR**
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in physics, certification code "DE," and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the National Science Teachers Association. The certification test covering this field is #19, "Physics." See page 177.

**TEACHING MINORS**

**ASTRONOMY MINOR**
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in astronomy, certification code "DO." The certification test covering this field is #21, "Astronomy." See page 178.

**GENERAL SCIENCE MINOR (AVAILABLE ONLY TO MAJORS IN ONE OF THE SCIENCES)**
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code "DX." The certification test covering this field is #16, "Science." See page 178.

**PHYSICS MINOR**
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in physics, certification code "DE." The certification test covering this field is #19, "Physics." See page 179.

**POLITICAL SCIENCE**

Joanna V. Scott
Department Head
601 Pray-Harrold
487-3113

**TEACHING MAJORS**

**POLITICAL SCIENCE MAJOR**
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in 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 science ("CX"). The certification test covering this field is #10, "Political Science." See page 186.

**POLITICAL SCIENCE MAJOR**
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in political science, certification code "CD." The certification test covering this field is #10, "Political Science." See page 187.

**TEACHING MINOR**

**POLITICAL SCIENCE MINOR**
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in political science, certification code "CD." The certification test covering this field is #10, "Political Science." See page 187.

**PSYCHOLOGY**

Kenneth W. Rusiniak
Department Head
537 Mark Jefferson
487-1155

**TEACHING MAJOR**

**PSYCHOLOGY MAJOR**
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in psychology, certification code "CE," and, depending on the minor selected, endorsement in economics ("CA"), geography ("CB"), history ("CC"), political science ("CD"), sociology ("CF"), or social science ("CX"). The certification test covering this field is #11, "Psychology." See page 191.
TEACHING MINOR

PSYCHOLOGY MINOR
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in psychology, certification code "CE." The certification test covering this field is #11, "Psychology." See page 192.

SOCIOLOGY, ANTHROPOLOGY, AND CRIMINOLOGY

Gregg Barak
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712 Pray-Harrold
487-0012

TEACHING MAJOR

SOCIOLOGY MAJOR
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in sociology, certification code "CF," and, depending on the minor selected, endorsement in economics ("CA"), geography ("CB"), history ("CC"), political science ("CD"), psychology ("CE"), or social science ("CX"). The certification test covering this field is #12, "Sociology." See page 197.

TEACHING MINOR

SOCIOLOGY MINOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in sociology, certification code "CF." The certification test covering this field is #12, "Sociology." See page 198.

TEACHING PROGRAMS,
MAJORS, AND MINORS IN THE COLLEGE OF EDUCATION

HEALTH, PHYSICAL EDUCATION,
RECREATION, AND DANCE

Michael M. Bretting
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237 Warner
487-4388

TEACHING MAJOR

PHYSICAL EDUCATION MAJOR
K-12 TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, leads to a Bachelors 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. The certification test covering this field is #44, "Physical Education" and is taken at the completion of all program requirements. See page 250.

TEACHING MINORS

HEALTH MINOR
ELEMENTARY, SECONDARY, K-12, SPECIAL EDUCATION-
ELEMENTARY, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in health, certification code "MA." The certification test covering this field is #43, "Health." See page 251.

PHYSICAL EDUCATION MINOR
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in physical education, certification code "MB." The certification test covering this field is #44, "Physical Education." See page 251.

PHYSICAL EDUCATION MINOR FOR SPECIAL EDUCATION MAJORS
SPECIAL EDUCATION-SECONDARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in physical education, certification code "MB" and fulfills the State of Michigan Approval as a Physical Education Teacher for Students with Disabilities. The certification test covering this field is #44, "Physical Education." See page 251.
SPECIAL EDUCATION
Kathleen S. Quinn
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215 Rackham
487-3301

TEACHING PROGRAMS

EMOTIONALLY IMPAIRED
(Elementary)

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. The certification tests covering this field are #83, “Elementary Education,” and #59, “Emotionally Impaired.” See page 263.

EMOTIONALLY IMPAIRED
(Secondary)

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. The certification tests covering this field are #83, “Elementary Education,” and #59, “Emotionally Impaired,” and the minor area. See page 264.

HEARING IMPAIRED
(Elementary)

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 hearing impaired, certification code “SL,” and, depending on the minor selected, an additional endorsement. The certification tests covering this field are #83, “Elementary Education,” and #62, “Hearing Impaired.” See page 264.

HEARING IMPAIRED
(Secondary)

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. The certification tests covering this field are #83, “Elementary Education,” and #62, “Hearing Impaired,” and the minor area. See page 265.

MENTALLY IMPAIRED
(Elementary)

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. The certification tests covering this field are #83, “Elementary Education,” and #56, “Mentally Impaired.” See page 266.

MENTALLY IMPAIRED
(Secondary)

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. The certification tests covering this field are #56, “Mentally Impaired,” and the minor area. See page 266.

PHYSICALLY AND OTHERWISE HEALTH IMPAIRED
(Elementary)

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. The certification tests covering this field are #58, “Physically and Otherwise Health Impaired,” and the minor area. See page 267.

PHYSICALLY AND OTHERWISE HEALTH IMPAIRED
(Secondary)

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. The certification tests covering this field are #58, “Physically and Otherwise Health Impaired,” and the minor area. See page 268.

SPEECH AND LANGUAGE IMPAIRED
(All Grade Levels)

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for either the Michigan Department of Education Elementary Provisional Certificate endorsed in speech/language impaired, certification code “SB” or the Michigan Department of Education Secondary Provisional Certificate endorsed in speech/language impaired, certification code “SB.” For elementary, the certification tests covering this field are #83, “Elementary Education,” and #57, “Speech and Language Impaired.” For secondary, the certification tests covering this field are #57, “Speech and Language Impaired,” and the minor area. See page 268.

VISUALLY IMPAIRED
(Elementary)

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. The certification tests covering this field are #83, “Elementary Education,” and #61, “Visually Impaired.” See page 269.
VISUALLY IMPAIRED
(SECONDARY)

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. The certification tests covering this field are #61, "Visually Impaired," and the minor area. See page 270.

TEACHER EDUCATION

James D. Riley
Department Head
234 Boone Hall
487-3260

TEACHING PROGRAMS

EARLY CHILDHOOD
(ELEMENTARY WITH EARLY CHILDHOOD MINOR)
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary Provisional Certificate, which 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 subject areas of concentration in grades 6-8. In addition, the student is qualified for recommendation for endorsement in early childhood, certification code "ZA." Depending on the major selected (or two other minors selected), the individual will be eligible for an additional endorsement(s). The certification tests for this field are #81, "Early Childhood," #83, "Elementary," and those needed for subject area endorsements. See page 277.

ELEMENTARY EDUCATION
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary Provisional Certificate, which 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 subject areas of concentration in grades 6-8. Depending on the major and minor selected (or three minors selected), the individual will be eligible for additional endorsements. The certification tests for this field are #81, "Early Childhood," #83, "Elementary," and those needed for subject area endorsements. The certification test covering this field are #81, "Early Childhood," #83, "Elementary," and those needed for subject area endorsements. See page 277.

TEACHING MAJORS

ARTS GROUP MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, 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." See page 278.

ELEMENTARY SCIENCE GROUP MAJOR
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code "DX." The certification test covering this field is #16, "Science." See page 279.

LITERATURE, LANGUAGE, COMMUNICATION, AND THEATRE ARTS GROUP MAJOR
ELEMENTARY TEACHER CERTIFICATION

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." See page 279.

SOCIAL SCIENCE GROUP MAJOR FOR ELEMENTARY EDUCATION
ELEMENTARY TEACHER CERTIFICATION

Note: Recommendation for endorsement in social science (certification code "CX") requires a group major of 36 hours from economics, geography, history, political science, psychology, sociology, anthropology, cultural studies, government, and behavioral studies. The certification test covering social sciences is #06, "Social Sciences." See page 279.

TEACHING MINORS

ARTS GROUP MINOR (NOT AVAILABLE WITH ART MAJOR OR WITH MUSIC MAJOR)
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in fine arts, certification code "OX." The certification test covering this field is #53, "Fine Arts." 13 hours for elementary program, not counting hours in Basic Studies and professional studies. See page 280.

EARLY CHILDHOOD EDUCATION MINOR

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." See page 280.

ELEMENTARY SCIENCE GROUP MINOR
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code "DX." The certification test covering this field is #16, "Science." See page 280.

FRENCH LANGUAGE MINOR
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation
for endorsement in French, certification code "FA." The certification test covering this field is #23, "French." See page 281.

**GERMAN LANGUAGE MINOR**

**ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in German, certification code "FB." The certification test covering this field is #24, "German." See page 281.

**SOCIAL SCIENCE GROUP MINOR**

**(ELEMENTARY)**

**ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in social science, certification code "CX." The certification test covering this field is #06, "Social Sciences." See page 281.

**SPANISH LANGUAGE MINOR**

**ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION**

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in Spanish, certification code "FF." The certification test covering this field is #28, "Spanish." See page 281.

**TEACHING MINOR IN THE COLLEGE OF HEALTH & HUMAN SERVICES**

**HUMAN, ENVIRONMENTAL, AND CONSUMER RESOURCES**

E. A. Rhodes
Department Head
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487-0077/487-0078

**TEACHING MINOR**

**OCCUPATIONAL FOODS MINOR (AVAILABLE ONLY TO BUSINESS EDUCATION AND TECHNOLOGY EDUCATION MAJORS)**

**SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION**

Students who will qualify for the Vocational Secondary Provisional Teaching Certificate may choose to take the courses in order to earn an endorsement in occupational foods. The course work will convert to 2,000 hours of supervised experience in quantity foodservice operations. An additional 2,000 hours of recent and relevant supervised experience in quantity foodservice are required. See p. 300.
TEACHING MAJORS AND MINOR IN THE COLLEGE OF TECHNOLOGY

BUSINESS AND INDUSTRIAL EDUCATION

Ann M. Remp
Department Head
14 Sill Hall
487-4330

TEACHING MAJORS

BUSINESS SERVICES AND TECHNOLOGY EDUCATION MAJOR
SECONDARY TEACHER CERTIFICATION

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.” See page 319.

MARKETING EDUCATION
SECONDARY TEACHER CERTIFICATION

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 “GX,” or, with appropriate work experience, certification code “VB.” The certification test covering this field is #36, “Marketing (Distributive Education).” See page 319.

INDUSTRIAL-VOCATIONAL EDUCATION MAJOR
SECONDARY TEACHER CERTIFICATION

The Industrial-Vocational major is designed to prepare teachers of industrial-vocational subjects for senior high school and community college vocational education programs. Graduate 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.

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. See page 320.

TECHNOLOGY EDUCATION MAJOR
SECONDARY TEACHER CERTIFICATION

This major must be completed in conjunction with Industrial 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 arts, certification code “IX.” The certification test covering this field is #38, “Industrial Arts.” See page 321.

TEACHING MINOR

TECHNOLOGY EDUCATION MINOR
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in industrial arts, certification code “IX.” The certification test covering this field is #38, “Industrial Arts.” See page 323.
HEALTH, PHYSICAL EDUCATION, RECREATION, AND DANCE

Michael M. Bretting
Department Head
235 Warner Physical Education Building
487-0900

Professors: John R. Adams, Gary C. Banks, Marvin J. Johnson, Steve W. Moyer, Michael J. Paciorek, Erik J. Pedersen, John E. Sheard, Roger L. Williams, Charles X. Witten, Winfred Witten, Myrna A. Yeake

Associate Professors: Michael M. Bretting, Douglas W. Briggs, Jean E. Folkther, Robbie A. Johnson, Michael H. Jones, Joann McNamara, Robert C. Parks, Jerry Ricciardo, Ronald J. Saunders, Matilda Y. Sayegh, Claudia B. Wasik


Instructors: Linda Hemmelgarn, Sharon Pendleton

All University students take courses in the Health, Physical Education, Recreation, and Dance department as part of their undergraduate degree requirements. Physical education activity courses 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 combative 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 new facilities such as the indoor track, racquetball/paddleball courts, and 50-meter swimming pool. Also available for class use are 17 tennis courts and bowling lanes 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, and the Physical Education 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: Linda Hemmelgarn
- Teachers of physical education: Michael Paciorek
- Recreation and park management: Vic Chiasson
- Therapeutic recreation: Jean Folkther
- Sports medicine-athletic training: Ron Venis
- Sports medicine-exercise science: John E. Sheard

Minors:

- Coaching: Michael Paciorek
- Dance: Linda Hemmelgarn
- Health: Myrna Yeake
- Physical 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.

ACADEMIC MAJORS

DANCE CURRICULUM

The dance curriculum is uniquely designed, offering students of dance a choice of five career-track options. This curriculum leads to a Bachelor of Science degree. The five tracks are: (1) pre-dance therapy, (2) dance and related arts, (3) studio management, (4) dance movement specialist, and (5) performance. Students are not required to choose a minor, with the exception of (3) studio management.

Students planning admission to the dance major must officially enroll in the program at the Academic Advising Center and complete the following:
### Basic Studies

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 107 Rhythmic Analysis and Dance Accompaniment</td>
<td>3</td>
</tr>
<tr>
<td>DAN 208-209 Classical Ballet Technique III-IV</td>
<td>6</td>
</tr>
<tr>
<td>DAN 210-211 Modern Dance Technique III-IV</td>
<td>6</td>
</tr>
<tr>
<td>DAN 245 Elements of Dance Composition</td>
<td>4</td>
</tr>
<tr>
<td>DAN 255 Dance Production</td>
<td>3</td>
</tr>
<tr>
<td>DAN 350 History of Dance</td>
<td>3</td>
</tr>
<tr>
<td>DAN 354 Materials in Teaching of Dance</td>
<td>3</td>
</tr>
<tr>
<td>DAN 450 Advanced Dance Composition</td>
<td>4</td>
</tr>
<tr>
<td>DAN 455 Seminar in Dance</td>
<td>2</td>
</tr>
<tr>
<td>PEP 320, 422, 423 Dance Workshop</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>67-72</strong></td>
</tr>
</tbody>
</table>

### Track Requirements

#### Track One

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDP 325 Life Span Human Growth and Development</td>
<td>4</td>
</tr>
<tr>
<td>PED 200 Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>PED 204 Kinesiology (Mechanics of Movement)</td>
<td>2</td>
</tr>
<tr>
<td>PED 209 Bio-Fitness</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101/102 General Psychology</td>
<td>3/4</td>
</tr>
<tr>
<td>PSY 309 Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 360 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 361 Psychotherapy</td>
<td>3</td>
</tr>
<tr>
<td>REC 250 Fieldwork</td>
<td>1</td>
</tr>
<tr>
<td>PEP 231 Service Teaching</td>
<td>1</td>
</tr>
<tr>
<td><strong>Choose one:</strong></td>
<td></td>
</tr>
<tr>
<td>PSY 321 Child Psychology, PSY 322 Psychology of Adolescence, PSY 323 Psychology of Human Aging</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong> for Track One</td>
<td><strong>12-17</strong></td>
</tr>
</tbody>
</table>

#### Track Electives

- PED 334 Adapted Physical Education, REC 200 Recreation for Persons with Disabilities, MUS 103 Introduction to Music Therapy, CTA 326 Developmental Dramatic Theatre with the Handicapped

### Total

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Studies</strong></td>
<td><strong>50</strong></td>
</tr>
<tr>
<td><strong>Dance Core</strong></td>
<td><strong>34-35</strong></td>
</tr>
<tr>
<td><strong>Track Requirements</strong></td>
<td><strong>34-35</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>131-135</strong></td>
</tr>
</tbody>
</table>

#### Track Two

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTA 150 Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>CTA 450 History of the Theatre to 1642</td>
<td>3</td>
</tr>
<tr>
<td>CTA 451 History of the Theatre: 1642 to the Present</td>
<td>3</td>
</tr>
<tr>
<td>FA 101 Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td>FA 107-108 Art History Survey I-II</td>
<td>3</td>
</tr>
<tr>
<td>PED 200 Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>PED 204 Kinesiology (Mechanics of Movement)</td>
<td>2</td>
</tr>
<tr>
<td>PHI 310 Aesthetics</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Track Electives

- PED 200 Anatomy and Physiology
- PED 204 Kinesiology (Mechanics of Movement)
- PHI 310 Aesthetics
- **Total** for Track Two                     | **17-22** |

- **Total**                                    | **124-130** |

### Track Three

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTA 102 Voice Development</td>
<td>1</td>
</tr>
<tr>
<td>CTA 158 Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>CTA 254 Stage Makeup</td>
<td>1</td>
</tr>
<tr>
<td>CTA 457 Tryouts and Auditions</td>
<td>1</td>
</tr>
<tr>
<td>CTA 461 Musical Theatre Acting</td>
<td>2</td>
</tr>
<tr>
<td>MUS 232 Voice Class</td>
<td>1</td>
</tr>
<tr>
<td>PED 200 Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>PED 204 Kinesiology (Mechanics of Movement)</td>
<td>2</td>
</tr>
<tr>
<td>PEG 155 Jazz I</td>
<td>1</td>
</tr>
<tr>
<td>PEG 159 Tap Dancing</td>
<td>1</td>
</tr>
<tr>
<td>PEG 255 Jazz II</td>
<td>1</td>
</tr>
<tr>
<td>PEP 320-321 Dance Workshop</td>
<td>2</td>
</tr>
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</table>

#### Electives

- **Total**                                    | **18-24** |

### Track Four

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 456 Creative Dance for Children</td>
<td>2</td>
</tr>
<tr>
<td>PED 200 Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>PED 204 Kinesiology (Mechanics of Movement)</td>
<td>2</td>
</tr>
<tr>
<td>PEG 102 Aerobic Dance</td>
<td>1</td>
</tr>
<tr>
<td>PEG 103 Couple, Square, and Ballroom Dancing</td>
<td>1</td>
</tr>
<tr>
<td>PEG 159 Tap Dancing</td>
<td>1</td>
</tr>
<tr>
<td>PEG 277 Special Topics: Intermediate Aerobics</td>
<td>1</td>
</tr>
<tr>
<td>PEP 331, 333 Service Teaching</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Electives

- **Total**                                    | **9-14** |

- **Total**                                    | **124-130** |

### Track Five

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 456 Creative Dance for Children</td>
<td>2</td>
</tr>
<tr>
<td>HEC 202 Human Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>HED 210 Standard American Red Cross First Aid</td>
<td>2</td>
</tr>
<tr>
<td>PED 200 Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>PED 204 Kinesiology (Mechanics of Movement)</td>
<td>2</td>
</tr>
<tr>
<td>PED 209 Bio-Fitness</td>
<td>2</td>
</tr>
<tr>
<td>PED 281 Motor Development</td>
<td>3</td>
</tr>
<tr>
<td>PED 310 Physiology of Human Performance</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Electives

- **Total**                                    | **22-27** |

- **Total**                                    | **124-130** |

### Recreation and Park Management Curriculum

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, regional recreation, state and federal park agencies, college intramurals and student unions, commercial and private recreation, outdoor adventure programs, industrial recreation, armed forces recreation, resorts, and tourism. The major is a non-teaching major. A minor in recreation and park management is offered to majors in other fields.

The curriculum is multi-disciplinary, including course work in management and the social sciences, with a required core of recreation leadership, programming, 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 50-52 credit hours of basic studies, a minimum of 56 credit hours of courses in the recreation and park management major, 17-19 credit hours of electives, and 250 hours of volunteer and/or paid recreation experience before taking a full-time 15 week practicum. The practicum and fieldwork cannot be completed at the same site.

### Area Sem hours

**Symbolics and communication (five courses)** ............................................. 14-15

ENG 121 English Composition ................................................................. 3

ENG 326 Research Writing ............................................................................ 3

CTA 121/124 Fundamentals of Speech ...................................................... 3-4

MTH 150 Mathematical Concepts ............................................................. 3

CSC 136 Computers for the Non-Specialist ................................................ 3

**Science and technology (three courses)** .................................................. 11-12

CHM 105 Survey of Chemistry .................................................................... 5

PSY 101/102 General Psychology ............................................................. 3-4

IT 240 Science, Technology, and People .................................................. 3

**Social science (four courses)** .................................................................. 12

PLS 112 American Government ................................................................... 3

A course in history ........................................................................................ 3

Two course sequence in any of the following:

- Anthropology, Economics, or Geography .................................................. 8

**Arts and humanities (four courses)** ......................................................... 12

A literature course......................................................................................... 3

A second literature course .......................................................................... 3

Philosophy or religion course ...................................................................... 3

CTA 222 Drama and Play in Human Experience .......................................... 3

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

(*May be taken in social science or arts and humanities areas.)

No outside minor is required, but is strongly recommended.

### Recreation and park management major .................................................. 43

**1. Required courses**

REC 100 Introduction to Recreation and Leisure (F, W) ................................. 3

REC 200 Recreation for Persons with Disabilities (F, 20-hours fieldwork) ........ 3

REC 250 Fieldwork (F W, 60 hours fieldwork) ............................................ 1

REC 260 Recreation Leadership ................................................................... 3

REC 271 Park Maintenance (F, odd years) .................................................. 3

REC 310 Leisure and the Older Adult (W) .................................................... 3

REC 320 Leisure Education (F) ................................................................... 3

REC 360 Recreation Program Planning (W) ............................................... 3

REC 390 Outdoor Recreation (F) .................................................................. 3

REC 410 Professional Preparation (W) ....................................................... 1

REC 450 Park Planning and Design (W, Lab) .............................................. 3

REC 460 Park and Recreation Administration (F) ........................................ 3

REC 465 Park and Recreation Management (W) .......................................... 3

REC 489 Recreation Practicum (F, W, SP/SU) ............................................. 8

**2. Restricted electives** ............................................................................. 44

REC 250/251/252/253 Fieldwork ................................................................. 1

REC 210 Camping for Special Populations .................................................. 2

REC 280 Camping ......................................................................................... 2

REC 330 Therapeutic Recreation: Substance Abuse (W, even years) .......... 3

REC 477/478/479 Special Topics ................................................................. 1-3

REC/PED 481 Adapted Aquatics .................................................................. 2

MUS 224 Recreational Music ...................................................................... 2

IE 152 Arts and Crafts .................................................................................. 3

PED 421 Legal Aspects of Sport, Physical Education, and Recreation .......... 2

BIO 224 Principles of Conservation ........................................................... 4

BIO 232 Nature Interpretation ..................................................................... 3

GEO 112 Introduction to Travel and Tourism ............................................. 3

GES 114 National Parks and Monuments .................................................... 3

GEO 212 Geography of Travel and Tourism ............................................. 3

GEO 343 Geography of Sport ...................................................................... 3

GEO 344 Recreation Geography .................................................................. 3

GEO 345 Geography of Resorts ................................................................. 3

CTA 352 Communication in Negotiation ................................................... 3

CTA 372 Assertive Communication ............................................................. 3

### 3. Activity courses** ................................................................................. 4

**Required:**

- Swimming (any level) ........................................................... 1

*Select three of the following:*

- PEG 101 Weight Control and Fitness ................................................... 2

- PEG 102 Aerobic Dance ........................................................................ 1

- PEG 103 Couple, Square, and Ballroom Dancing .................................. 1

- PEG 126 Conditioning Activities .......................................................... 1

- PEG 142 Racquetball and Paddleball .................................................... 1

- PEG 144 Trap and Skeet Shooting ......................................................... 1

- PEG 145 Cross Country Skiing .............................................................. 1

- PEG 146 Beginning Snow Skiing ............................................................ 1

- PEG 147 Archery ................................................................................. 1

- PEG 148 Tennis .................................................................................... 1

- PEG 149 Badminton ............................................................................. 1

- PEG 150 Golf ....................................................................................... 1

- PEG 151 Bowling .................................................................................. 1

**Basic studies** ......................................................................................... 49-51

**Recreation major** ................................................................................... 43

**Recreation electives** ............................................................................. 9

**Activities** ............................................................................................... 4

**General electives** .................................................................................. 17-19

**Total** ...................................................................................................... 124

### CURRICULUM FOR SPORTS MEDICINE

**NOTE:** The Sports Medicine programs are currently undergoing review. Students need to check with the appropriate program coordinator for the "most current" program.

Sports medicine is a comparatively new field of study that correlates sports, medicine, the sciences and other health related areas into a professional curriculum. It is identified under different approaches and titles: athletic medicine, cardiovascular rehabilitation, exercise physiology, biomechanics, athletic training, and other similar names. Essentially, sports medicine means an understanding of the health and physical implications of human beings engaged in physical activity.

The curriculum leads to a Bachelor of Science degree in sports medicine. The course of study consists of a minimum of 50 semester hours in basic studies, a minimum of 54-60 semester hours in sports medicine related courses 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. No outside minor is needed.

Students electing this curriculum may choose one of two areas of specialization: exercise science or athletic training.

Students entering the sports medicine program are listed as "intents" and cannot be considered for candidacy until the following criteria are met:

**Sports medicine-exercise science:**

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.

4. Grades of "C" or above in each of the following: BIO 105 Biology and the Human Species, CHM 120 Fundamentals of Organic and Biochemistry, PHY 221 Mechanics, Sound, and Heat, PED 200 Anatomy and Physiology, ZOO 318 Laboratory in Human Anatomy.

5. Three letters of recommendation, two professional and one personal.

### Therapeutic Recreation Curriculum

The therapeutic recreation curriculum leads to a Bachelor of Science degree in therapeutic recreation. A person graduating from this program may apply for national certification as a Certified Therapeutic Recreation Specialist.

This curriculum consists of a minimum of 50-52 credit hours of basic studies, a minimum of 68 credit hours of courses in the therapeutic recreation major, 4-6 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.

Students who have been accepted by the University through the Admissions Office must apply for a provisional admission to the therapeutic recreation curriculum through the therapeutic recreation coordinator.

**Criteria for therapeutic recreation provisional status:**

1. Application for program admission
2. Autobiographical sketch
3. Statement of professional goals

**Criteria for therapeutic recreation candidate status:**

1. Completed application for therapeutic recreation status. A minimum of 30 credit hours at EMU, including REC 100, 200, and 250.
2. A minimum grade point average of 2.50 overall and 2.75 in all major courses.
3. Completion of a minimum of 60 hours of verified volunteer and/or paid therapeutic recreation experience with special populations.
4. Completion of a minimum of 30 hours of verified volunteer and/or paid recreation experience with normal populations.
5. Letters of recommendation from two recreation practitioners in the field under whom the applicant has completed volunteer and/or paid work.
6. A transfer student must have completed at least 30 credit hours, 15 of which must be at EMU and include three courses from the required therapeutic recreation program.

### Sports Medicine-Athletic Training Option

1. Declare major intent with the Academic Advising Center and the department.
2. Overall grade point average at Eastern Michigan University of 3.0 (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: BIO 105 Biology and the Human Species, CHM 120 Fundamentals of Organic and Biochemistry, PHY 221 Mechanics, Sound, and Heat, ZOO 318 Laboratory in Human Anatomy.
5. A grade of “B” or above in PED 200 Anatomy and Physiology.
6. Three letters of recommendation, two professional and one personal.
7. Biographical sketch.

When an “intent” has successfully achieved the above, he or she will be notified of the date and time for a personal interview with the Sports Medicine Committee.

#### Area  
**Sem hours**

**Symbols and communication**  
- Requirements 1, 2, 3, 4, and 5 (box, page 26)  
- **8-9**

**Science and technology** (three courses)  
- BIO 105 Biology and the Human Species  
- CHM 120 Fundamentals of Organic and Biochemistry  
- PHY 221 Mechanics, Sound, and Heat  
- **12**

**Social science**  
- Requirements 1, 2, 3, and 4 (box, page 28)  
- **9**

**Arts and humanities**  
- Requirements 1, 2, 3, and 4 (box, page 29)  
- **15**

#### Sports medicine—Exercise science option  
**54**

- ATH 119 Orientation to Sports Medicine  
- ATH 219 Introduction to Athletic Training  
- ATH 220 Remedial Exercises and Therapeutic Modalities  
- **3**

- ATH 225 Practicum I  
- ATH 315 Psychology of Coaching  
- ATH 320 Recognition and Evaluation of Athletic Injury  
- ATH 378 Special Topics: Practicum II  
- ATH 390 Pre-Internship  
- ATH 419 Medical and Administrative Aspects of Athletic Training  
- ATH 490 Internship—Athletic Training  
- HEC 202 Human Nutrition  
- HED 310 Advanced First Aid and Emergency Care  
- HED 390 Drug Use and Abuse  
- PED 200 Anatomy and Physiology  
- PED 204 Kinesiology (Mechanics of Movement)  
- PED 209 Bio-Fitness  
- PED 300 Physiotherapy of Exercise  
- PED 310 Physiology of Human Performance  
- PED 410 Laboratory Techniques in Human Performance Analysis  
- PED 421 Legal Aspects of Sport, Physical Education, and Recreation  
- PED 425 Sports Medicine Practicum—Exercise Science  
- PED 430 Basic Principles of Electrocardiography  
- PED 480 Internship—Exercise Science  
- ZOO 318 Laboratory in Human Anatomy  
- **8**

**Free electives**  
- **2**

**Total**  
- **124**

#### Sports medicine—Athletic training option  
**57**

- ATH 119 Orientation to Sports Medicine  
- **1**

- ATH 220 Remedial Exercises and Therapeutic Modalities  
- **3**

- ATH 225 Practicum I  
- ATH 315 Psychology of Coaching  
- **2**

- ATH 320 Recognition and Evaluation of Athletic Injury  
- ATH 378 Special Topics: Practicum II  
- **2**

- ATH 390 Pre-Internship  
- ATH 419 Medical and Administrative Aspects of Athletic Training  
- **2**

- ATH 490 Internship—Athletic Training  
- HEC 202 Human Nutrition  
- **3**

- HED 310 Advanced First Aid and Emergency Care  
- **3**

- HED 390 Drug Use and Abuse  
- **3**

- PED 200 Anatomy and Physiology  
- **5**

- PED 204 Kinesiology (Mechanics of Movement)  
- **2**

- ZOO 318 Laboratory in Human Anatomy  
- **2**

**Free electives**  
- **2**

**Total**  
- **124**

### Symbolics and Communication  
- **14-15**

- CTA 121/124 Fundamentals of Speech  
- **3**

- ENG 121 English Composition  
- **3**

- ENG 326 Research Writing  
- **3**

- CSC 136 Computers for the Non-Specialist  
- **3**

- CHM 105 Survey of Chemistry  
- **5**

**Free electives**  
- **3**

**Total**  
- **11-12**

**Area**  
**Sem hours**
Therapeutic Recreation major

1. Required courses .......................................................... 58
   REC 100 Introduction to Recreation and Leisure (F, W) .... 3
   REC 180 Activity Analysis and Adaptation (W) .............. 2
   REC 200 Recreation for Persons with Disabilities (F) ... 3
   REC 250 Fieldwork (F, W, 60 hours fieldwork) ............. 1
   REC 260 Recreation Leadership (F) .............................. 3
   REC 300 Principles of Therapeutic Recreation (W-even years, 30 hours fieldwork) ................. 3
   REC 310 Leisure and the Older Adult (W) ...................... 3
   REC 320 Leisure Education ......................................... 3
   REC 340 Techniques in Therapeutic Recreation (W-even years, 30 hours fieldwork) ............... 3
   REC 360 Recreation Program Planning (W) ................. 3
   REC 400 Therapeutic Recreation Processes and Services (F) .... 3
   REC 410 Professional Preparation (W) ......................... 1
   REC 449 Therapeutic Recreation Practicum (F, W, SP/SU) .... 8
   REC 460 Park and Recreation Administration (F) ............ 3
   REC 465 Park and Recreation Management (W) .............. 3
   PED 200 Anatomy and Physiology (F, W, Sp) ............... 5
   EDP 325 Life Span Human Growth and Development ........ 4
   PSY 365 Behavior Modification ................................. 3
   AHP 200 Medical Terminology .................................... 1
   REC 250/251/252/253 Fieldwork (F, W) ....................... 1
   REC 210 Camping for Special Populations (W) ............. 2
   REC 390 Outdoor Recreation (F) ................................ 3
   REC 330 Therapeutic Recreation: Substance Abuse (W-even years) ........................................ 3
   REC/PED 481 Adapted Aquatics ................................. 2
   REC 477/478/479 Special Topics ................................ 1-3
   IE 152 Arts and Crafts ............................................. 3
   PED 204 Kinesiology (Mechanics of Movement) ............. 2
   PED 334 Adapted Physical Education .......................... 2
   PED 384 Physical Education for the Visually and Hearing Impaired ..................................... 1
   PED 385 Special Olympics ......................................... 3
   PED 386 Physical Education for the Mentally Impaired ..... 1
   PED 421 Legal Aspects of Sport, Physical Education, and Recreation ........................................ 3
   SGN 251 Education of Exceptional Children .................. 2
   CTA 227 Non-Verbal Communication .......................... 3
   CTA 326 Developmental Drama/Theatre with the Handicapped .................................................... 2
   MUS 103 Introduction to Music Therapy .................... 2
   MUS 224 Recreational Music ................................. 2

Activity courses ................................................................ 4
   Required
   Swimming (any level) .................................................. 1
   Select three of the following:
   PEG 102 Aerobic Dance ........................................... 1
   PEG 103 Couple, Square, and Ballroom Dancing ............ 1
   PEG 147 Archery ...................................................... 1
   PEG 148 Tennis ....................................................... 1
   PEG 149 Badminton .................................................. 1
   PEG 150 Golf ........................................................... 1
   PEG 151 Bowling ..................................................... 1
   PEG 158 Folk Dancing .............................................. 1

Basic studies .................................................................. 50-52

Therapeutic recreation major ........................................... 58
Therapeutic recreation electives ..................................... 6
Therapeutic recreation activities ..................................... 4
Electives .......................................................................... 4-6
Total ............................................................................. 124

ACADEMIC MINORS

COACHING MINOR

Designed for students intending to pursue coaching as a full- or part-time activity. The minor is not to be considered a teaching minor for prospective teachers.

Minor in coaching .......................................................... 20
   1. Required courses ...................................................... 11
      PED 200 Anatomy and Physiology .......................... 5
      PED 204 Kinesiology (Mechanics of Movement) .......... 2
      PED 312 Athletic Training and Physiotherapy ............ 2
      PED 316 Foundations of Coaching ............................ 2
   2. Restricted electives .................................................... 9
      Group A ..................................................................... 2
      PED 300 Physiology of Exercise or PED 310 Physiology of Human Performance .............................. 2
      ATH 315 Psychology of Coaching or PED 305 Practical Concepts of Conditioning .............................. 2
      Group B ..................................................................... 2
      ATH 261 Techniques of Officiating I ........................... 2
      ATH 262 Techniques of Officiating II .......................... 2
      ATH 263 Theory of Football ....................................... 2
      ATH 265 Theory of Baseball ...................................... 2
      ATH 267 Theory of Basketball .................................... 2
      ATH 269 Theory of Track and Field ............................ 2
      ATH 513 Coaching Women’s Gymnastics .................... 2
      ATH 514. Judging Women’s Gymnastics ...................... 2
      PEP 316 Coaching and Judging Women’s Gymnastics .... 2
      PEP 415 Coaching and Judging Men’s Gymnastics ....... 1
      PEP 233 Service Teaching ......................................... 1
      PEP 331 Service Teaching ......................................... 1
      PED 421 Legal Aspects of Sport, Physical Education, and Recreation .............................. 2

DANCE MINOR

Students planning admission to the dance minor must complete the following:
   1. An application at 108 Warner Physical Education Building;
   2. A technical assessment in modern dance and ballet;
   3. A course of study planned with a dance adviser.

Sem hours
   Minor in dance .......................................................... 24-30
   1. Theory courses ...................................................... 14-16
      DAN 107 Rhythmic Analysis and Dance 4
      Accompaniment ...................................................... 3
      DAN 245 Elements of Dance Composition .................. 3
      DAN 255 Dance Production ...................................... 3
      DAN 350 History of Dance ....................................... 3
2. Studio courses ........................................................ 10-14
   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-IV ........................................... 2
3. Electives ............................................................. 5
   To be chosen from other dance studio courses

**HEALTH MINOR**

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. See above.

**RECREATION AND PARK MANAGEMENT MINOR**

Sem hours

Minor in recreation and park management .................. 20

1. Required courses .................................................... 15
   REC 100 Introduction to Recreation and Leisure ....... 3
   REC 250 Field Work ................................................. 1
   REC 260 Recreation Leadership .................................. 1
   REC 360 Recreation Program Planning ....................... 3
   REC 451 Park Maintenance and Management ............... 2
   REC 460 Park and Recreation Administration ............. 3
2. Electives ............................................................. 5
   REC 280 Camping, REC 250/251/252/253 Field Work, REC 300 Principles of Therapeutic Recreation, REC 310 Leisure and the Older Adult, REC 390 Outdoor Recreation, REC 400 Therapeutic Recreation Processes and Services, REC 477/478/479 Special Topics, REC/ PED 481 Adapted Aquatics
   IE 152 Arts and Crafts
   BIO 224 Principles of Conservation
   GES 114 National Parks and Monuments, GEO 215 Introduction to Urban and Regional Planning
   PLS 431 Theories of Public Organization
   ACC 246 Accounting for Public Administrators
   CTA 352 Communication Negotiation, CTA 372 Assertive Communication

**TEACHING MAJOR**

**PHYSICAL EDUCATION MAJOR**

**K-12 TEACHER CERTIFICATION**

Successful completion of this course of studies, in the context of other program requirements, leads to a Bachelors 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. The certification test covering this field is #44, "Physical Education" and is taken at the completion of all program requirements.

Students seeking certification must be admitted to the teacher education program. The course of study requires completion of Basic Studies requirements, a Minor in a secondary subject area of 20-24 hours, the physical education major of 47 hours, and professional education courses.

The course of study 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 Programs Project (MEPEPP) 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 pre-student 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. Employability is significantly increased when flexibility in job location is maintained. Faculty provide students with numerous opportunities for professional experiences that has led to successful employment. Opportunities for additional certifications and endorsements such as water safety instructor (WSI), 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.

**Basic Studies**

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. PSY 101 General Psychology (3)
II-B-3. Basic Studies requirement. See inside back cover
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ........................................... 49

**Teaching Major**

PED 200 Anatomy and Physiology (5)
PED 204 Kinesiology (Mechanics of Movement) (2)
PED 240 History and Philosophy of Physical Education (2)
PED 281 Motor Development (3)
PED 300 Physiology of Exercise (3)
One of:
   PED 312 Athletic Training and Physical Therapy (2)
   PED 610 Standard American Red Cross First Aid (2)
   PED 334 Adapted Physical Education (2)
Eleven hours of academic electives, selected in consultation with an academic adviser

**Minor**

Select a minor from the approved list. See p. 230

**Professional Studies**

100 clock hours of approved pre-student teaching field experiences (0)
Total credit hours required: ................................................. 140

Credit hours in Professional Studies: ................................................. 41

Credit hours required: ............................................................... 140

PED 150 Methods of Teaching Individual Sports (3)
PED 151 Methods of Teaching Team Sports I (3)
PED 152 Methods of Teaching Team Sports II (1)
PED 153 Methods of Teaching Conditioning Activities (1)
PED 250 Methods of Teaching Aquatics (2)
PED 251 Methods of Teaching Gymnastics (3)
PED 250 Methods of Teaching Team Sports I (3)
PED 252 Methods of Teaching Team Sports II (1)
PED 253 Methods of Teaching Conditioning Activities (1)
PED 250 Methods of Teaching Aquatics (2)
PED 251 Methods of Teaching Gymnastics (3)

If PED 281 or PED 300 is in the program, select 7 hours from this list, if PED 310 is in the program, select 8 hours from this list:
PED 150 Methods of Teaching Individual Sports (3)
PED 151 Methods of Teaching Team Sports I (3)
PED 152 Methods of Teaching Team Sports II (1)
PED 153 Methods of Teaching Conditioning Activities (1)
PED 250 Methods of Teaching Aquatics (2)
PED 251 Methods of Teaching Gymnastics (3)

24 hours

PHYSICAL EDUCATION MINOR FOR SPECIAL EDUCATION MAJORS

SPECIAL EDUCATION-ELEMENTARY AND SPECIAL EDUCATION-SECONDARY TEACHER CERTIFICATION
(AVAILABLE ONLY TO SPECIAL EDUCATION MAJORS)

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" and fulfills the State of Michigan Approval as a Physical Education Teacher for Students with Disabilities. The certification test covering this field is #44, "Physical Education."

PED 204 Kinesiology (Mechanics of Movement) (2)
PED 281 Motor Development (3)
PED 282 Perceptual-Motor Training (1)
PED 334 Adapted Physical Education (2)
PED 367 Methods and Materials in Physical Education (3)
PED 388 Assessment in Adapted Physical Education (1)
PED 389 Sport and Activity for the Disabled (1)
*PED 200 Anatomy and Physiology (5)
**PED 490 Field Experience in Adapted Physical Education (4)
Six hours from:
PED 150 Methods of Teaching Individual Sports (3)
PED 151 Methods of Teaching Team Sports I (3)
PED 152 Methods of Teaching Team Sports II (1)
PED 153 Methods of Teaching Conditioning Activities (1)
PED 250 Methods of Teaching Aquatics (2)
PED 251 Methods of Teaching Gymnastics (3)
PED 350 Methods of Teaching Rhythmic Activities (1)
PED 351 Methods of Teaching Fundamental Movement and Movement Education (1)
PED 352 Methods of Teaching Elementary Physical Education (2)

24 hours

ACTIVITY COURSES FOR GENERAL STUDENTS

The physical education activity requirement is explained on page 31 in this catalog. Additional information may be obtained in the department office in Room 235 Warner Physical Education Building.

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, Pierce Hall.

100 LEVEL—BEGINNING COURSES

These courses are designed for students who have limited or no experience in the particular activity. Instruction and participation include basic skills, rules and strategies: Although all courses are open to both men and women, certain courses include content that is prescribed by the course title, for example PEG 119 Women's Gymnastics and PEG 122 Men's Gymnastics I.

PED 101 Weight Control and Fitness .............................................. 2
These courses assume basic ability and knowledge in the particular activity. Students who elect courses should have successfully completed the beginning course or have had equivalent instruction and/or experience. All courses are open to both men and women except those advanced courses governed by University eligibility rules and regulations.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEG 102</td>
<td>Aerobic Dance</td>
<td>1</td>
</tr>
<tr>
<td>PEG 103</td>
<td>Couple, Square, and Ballroom Dancing</td>
<td>1</td>
</tr>
<tr>
<td>PEG 108</td>
<td>Basketball</td>
<td>1</td>
</tr>
<tr>
<td>PEG 109</td>
<td>Jishukan Jujitsu</td>
<td>1</td>
</tr>
<tr>
<td>PEG 111</td>
<td>Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PEG 117</td>
<td>Synchronized Swimming</td>
<td>1</td>
</tr>
<tr>
<td>PEG 119</td>
<td>Women's Gymnastics</td>
<td>1</td>
</tr>
<tr>
<td>PEG 120</td>
<td>Modern Rhythmic Gymnastics</td>
<td>1</td>
</tr>
<tr>
<td>PEG 121</td>
<td>Orienteering</td>
<td>1</td>
</tr>
<tr>
<td>PEG 122</td>
<td>Men's Gymnastics</td>
<td>1</td>
</tr>
<tr>
<td>PEG 126</td>
<td>Conditioning Activities</td>
<td>1</td>
</tr>
<tr>
<td>PEG 128</td>
<td>Judo</td>
<td>1</td>
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<tr>
<td>PEG 130</td>
<td>Assault and Rape Prevention</td>
<td>1</td>
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<tr>
<td>PEG 135</td>
<td>Softball</td>
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<tr>
<td>PEG 140</td>
<td>Marching Band</td>
<td>1</td>
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<tr>
<td>PEG 141</td>
<td>Adapted Activities</td>
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<tr>
<td>PEG 142</td>
<td>Racquetball and Paddleball</td>
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<tr>
<td>PEG 143</td>
<td>Fencing</td>
<td>1</td>
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<tr>
<td>PEG 144</td>
<td>Trap and Skeet Shooting</td>
<td>1</td>
</tr>
<tr>
<td>PEG 145</td>
<td>Cross Country Skiing</td>
<td>1</td>
</tr>
<tr>
<td>PEG 146</td>
<td>Beginning Snow Skiing</td>
<td>1</td>
</tr>
<tr>
<td>PEG 147</td>
<td>Archery</td>
<td>1</td>
</tr>
<tr>
<td>PEG 148</td>
<td>Tennis</td>
<td>1</td>
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<tr>
<td>PEG 149</td>
<td>Badminton</td>
<td>1</td>
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<tr>
<td>PEG 150</td>
<td>Golf</td>
<td>1</td>
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<tr>
<td>PEG 151</td>
<td>Bowling</td>
<td>1</td>
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<tr>
<td>PEG 152</td>
<td>Sailing</td>
<td>1</td>
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<tr>
<td>PEG 153</td>
<td>Swimming</td>
<td>1</td>
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<tr>
<td>PEG 155</td>
<td>Jazz I</td>
<td>1</td>
</tr>
<tr>
<td>PEG 156</td>
<td>Canoeing</td>
<td>1</td>
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<tr>
<td>PEG 158</td>
<td>Folk Dancing</td>
<td>1</td>
</tr>
<tr>
<td>PEG 159</td>
<td>Tap Dancing</td>
<td>1</td>
</tr>
<tr>
<td>PEG 160</td>
<td>Ballet</td>
<td>1</td>
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<tr>
<td>PEG 161</td>
<td>Modern Dance</td>
<td>1</td>
</tr>
<tr>
<td>PEG 177/178/179</td>
<td>Special Topics</td>
<td>1/2/3</td>
</tr>
</tbody>
</table>

**200 LEVEL—INTERMEDIATE AND ADVANCED COURSES**

**ATHLETIC COURSES**

**ATH 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.

**ATH 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.

**ATH 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: ATH 119.

**ATH 220 Remedial Exercises and Therapeutic Modalities.** 3 hrs
A study of the principles of applications, physiological effects, indications and contraindications of all commonly used therapeutic modalities and therapeutic exercise methods used in athletic training.
Prereq: ATH 219.

**ATH 225 Practicum I.** 2 hrs
A supervised educational experience in athletic training under the supervision of a certified athletic trainer.
Prereq: ATH 219 and department permission.

**ATH 250 Techniques of Officiating Volleyball.** 1 hr
The proper techniques and mechanics of officiating volleyball taught through class presentations and practical experiences. Rules interpretation and application, positioning, scoring, verbal and hand signals and the responsibilities of an official. Students may become registered volleyball officials with the Michigan High School Athletic Association.
ATH 251 Techniques of Officiating Basketball. 1 hr
The proper techniques and mechanics of officiating basketball taught through class presentations and practical experience. Floor positions, signals, interpretation and application of rules, officials' duties and the psychology of officiating. For students interested in pursuing job opportunities in officiating basketball, as well as coaches and teachers. Lecture and laboratory sessions.

ATH 252 Techniques of Officiating Softball. 1 hr
Proper mechanics and techniques of officiating softball. Rules interpretation and application, positioning, scoring, verbal and hand signals, and the duties of an official. Students may also become registered softball officials with the Michigan High School Athletic Association. Lecture and laboratory sessions.

ATH 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.

ATH 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.

ATH 263 Theory of Football. 2 hrs
Lecture course covering the basic fundamentals and styles of offensive and defensive football.

ATH 265 Theory of Baseball. 2 hrs
The fundamental skills and strategy of baseball for the prospective teacher and coach.

ATH 267 Theory of Basketball. 2 hrs
Lecture course covering the basic fundamentals and styles of offensive and defensive basketball.

ATH 268 Theory of Coaching Swimming. 2 hrs
ATH 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.

ATH 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.

ATH 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.

ATH 315 Psychology of Coaching. 2 hrs
Practical guidelines to help the prospective coach more effectively apply behavioral science principles to performance aspects of sport.

ATH 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.

ATH 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.

ATH 320 Recognition and Evaluation of Athletic Injury. 3 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: ATH 225 and PED 300.

ATH 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.

ATH 390 Pre-Internship. 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.

ATH 419 Medical and Administrative Aspects of Athletic Training. 2 hrs
To expose a candidate student to the various medical specialties that an athletic trainer is likely to utilize as medical support staff in the athletic health care setting. The organizational and administrative concepts are also featured that are necessary to the smooth delivery of an athletic health care system. The course is primarily lecture, but practical sessions are included where appropriate.

Prereq: ATH 320.

ATH 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.

ATH 490 Internship. 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 typically be expected to increase his/her skills and knowledges in the key task areas of athletic training.

Prereq: Candidacy and department permission.

DANCE COURSES

DAN 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.

DAN 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.

DAN 108 Classical Ballet Technique I. 2 hrs
Theory and technique of beginning classical ballet.

Prereq: Dance major/minor, DAN 107 or equivalent, and/or permission.
DAN 109 Classical Ballet Technique II. 2 hrs
A continuation of the theory and technique of beginning classical ballet.
*Prereq:* Dance major/minor, DAN 108 or equivalent, and/or permission.

DAN 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.

DAN 111 Modern Dance II. 2 hrs
A continuation of the theory and technique of DAN 110.
*Prereq:* Department permission.

DAN 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.

DAN 208 Classical Ballet Technique III. 3 hrs
Theory and technique of intermediate classical ballet.
*Prereq:* Dance major/minor, DAN 109 or equivalent, and/or permission.

DAN 209 Classical Ballet Technique IV. 3 hrs
A continuation of the theory and technique of advanced and intermediate classical ballet.
*Prereq:* Dance major/minor, DAN 208 or equivalent, and/or permission.

DAN 210 Modern Dance Technique III. 3 hrs
A continuation of DAN 111.
*Prereq:* DAN 111.

DAN 211 Modern Dance Technique IV. 3 hrs
A continuation of DAN 210.
*Prereq:* DAN 210.

DAN 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:* DAN 210.

DAN 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 make-up. Laboratory projects coordinated with dance productions.

DAN 355 Labanotation. 3 hrs
A study of the basic elements of Labanotation with special emphasis on the analysis of dance movements. The course will also include the development of skills necessary to record movement and read notation.
*Prereq:* DAN 110, DAN 245

DAN 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.

DAN 450 Advanced Dance Composition. 4 hrs
An extension of the principles explored in DAN 245 with emphasis on structural development and experiences in the use of thematic materials, selected dance idioms, multi-media resources and group choreography. A choreographic work will be required of students.
*Prereq:* DAN 107 and DAN 211.

DAN 455 Seminar in Dance. 2 hrs
Current literature and dance research, trends in dance education and developments in contemporary concert dance. Lecture-discussion.
*Prereq:* DAN 350, DAN 450, or department permission.

DAN 456 Creative Dance for Children. 2 hrs
Goals, concepts, materials and experiences to teach children's creative dance.

DAN 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.

DAN 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 selected 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

HED 110 Introduction to Safety Education. 2 hrs
An orientation of the field of safety education with emphasis on the safety movement, accident causation, school safety programs, and the application of the principles of accident prevention to selected areas of safety.

HED 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.

HED 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.

HED 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.

HED 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.

HED 301 Drinking, Drunkenness, and Alcoholism. 1 hr
Alcoholic beverages, effects of alcohol on the human body, drinking patterns, alcoholism, and alcoholism and the family, and treatment and rehabilitation of the alcoholic. A lecture-discussion course intended to meet the personal needs of students and/or the professional needs of students who may deal with alcohol-related problems.

HED 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.

HED 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: HED 210 or current Red Cross certification in First Aid.

HED 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.

HED 330 Health Work in the Schools. 2 hrs
Scientific facts and current issues, practices and trends in school health programs at the secondary level. Methods and materials of health instruction.
Prereq: Sophomore standing.

HED 350 Scientific Foundations in Health. 3 hrs
Basic instruction in the physiological and anatomical concepts related to the health of the human organism. Laboratory work included.

HED 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.

HED 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.

HED 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 HED 350.

HED 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.

HED 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.

HED 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.

HED 410 Drug Overdose Aid. 2 hrs
Outlined by the American Red Cross. Lectures, textbook and practical application of first aid skills and overdose aid skills to give immediate, temporary help in cases of accidents involving drugs. Listening, feedback, and communication skills; limited field experience or its equivalent. Certification in Multi-Media First Aid, Cardiopulmonary Resuscitation, and Overdose Aid is awarded upon successful completion of the course.

HED 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.

HED 430 Community Health Resources. 2 hrs
Community health programs and resources as they apply to the school health program.
Prereq: HED 320.

HED 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.

PHYSICAL EDUCATION COURSES

PED 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.

PED 150 Methods of Teaching Individual Sports. 3 hrs
A required class for physical education majors/minors who are preparing to teach individual sports in the elementary and secondary schools. Instruction in the teaching, performance, analysis, and evaluation of selected fundamental badminton, golf, and tennis skills.

PED 151 Methods of Teaching Team Sports I. 3 hrs
A required class for physical education majors/minors who are preparing to teach in elementary and secondary schools. Instruction in the teaching, performance, analysis, and evaluation of selected fundamental basketball, softball, and volleyball skills will be presented.

PED 152 Methods of Teaching Team Sports II. 1 hr
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 of skills utilized in soccer, team handball, and non-traditional activities.

PED 153 Methods of Teaching Conditioning Activities. 1 hr
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.

PED 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.

PED 200 Anatomy and Physiology. 5 hrs
A textbook course, supplemented by lectures and demonstrations, on the structure and functions of the bones, joints, and muscles and the organs of digestion, respiration, and excretion.

PED 204 Kinesiology (Mechanics of Movement). 2 hrs
A textbook course in the mechanics of bodily movements. The separate movements of the upper limbs, lower limbs, and trunk; those of the body as a whole as it is used in gymnastics, games and sports, and the various occupations of life.
Prereq: PED 200.

PED 209 Bio-Fitness. 2 hrs
Individual biological needs and how those needs are related to daily habits. Students will complete an individual fitness profile that will be the basis for understanding how desirable changes in fitness are achieved.

PED 210 Lifetime Wellness and Fitness. 3 hrs
This lecture-laboratory course is designed to assist students in exploring five components of wellness and applying component concepts into their lifestyles through experiential learning.
Prereq: Honors student.

PED 240 History and Philosophy of Physical Education. 2 hrs
A lecture and reference course covering the history and philosophy of physical education and play and how they have influenced the social structure of the various countries and their educational implications.

PED 250 Methods of Teaching Aquatics. 2 hrs
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.

PED 251 Methods of Teaching Gymnastics. 3 hrs
A required class for physical education majors/minors who are preparing to teach in elementary and secondary schools. Instruction in the teaching, performance, analysis, and evaluation of fundamental gymnastics skills will be presented.

PED 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.

PED 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.

PED 281 Motor Development. 3 hrs
A study of the continuous process of motor development. Observation and analysis of locomotor, non-locomotor, and manipulative patterns; planning and directing movement experiences appropriate for the preschool and elementary school child. Supervised laboratory experience provided.

PED 282 Perceptual-Motor Training. 1 hr
Planning and effecting gross motor activity programs for students with neurological dysfunction. Assessment procedures and activity sequences. Supervised field experiences required.

PED 300 Physiology of Exercise. 3 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: PED 200.

PED 304 Microcomputer Applications in HPER&D. 2 hrs
The course provides a basic overview of how the microcomputer can be integrated into the physical education, recreation, health, dance, and sports medicine programs. Through the use of lecture/demonstrations and hands-on activities, participants use and evaluate a variety of software applicable to school and non-school settings.

PED 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.

PED 310 Physiology of Human Performance. 2 hrs
Environmental physiology (heat stress, altitude, and underwater physiology) as it relates to physical education; exercise metabolism as it relates to training techniques for endurance, strength, speed, weight control, and physical fitness; physiological and structural sex differences as they relate to physical education; special aids to performance.
Prereq: PED 200.

PED 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: PED 200.

PED 316 Foundations of Coaching. 2 hrs
Practical and scientific information necessary for the implementation of a successful coaching program.

PED 334 Adapted Physical Education. 2 hrs
A lecture and participation course covering the philosophy and goals of adapted physical education, the relationship of adapted 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.

PED 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.

PED 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: PED 281.

PED 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: PED 351.

PED 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.

PED 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.

PED 384 Physical Education for the Visually and Hearing Impaired. 1 hr
Planning and effecting physical education programs for visually and hearing impaired students. Adaptations, teaching strategies, and activity sequences. Supervised field experiences required.  
Prereq: PED 281 or PED 334.

PED 385 Special Olympics. 3 hrs
Planning and effecting Special Olympics participation for mentally impaired students. Task analysis, organization, instructional techniques, and program content. Supervised field experiences required.  
Prereq: PED 386 and either PED 281 or PED 334.

PED 386 Physical Education for the Mentally Impaired. 1 hr
Planning and effecting physical education programs for trainable and severely mentally impaired students. Assessment procedures, teaching strategies, and activity sequences. Supervised field experiences required.  
Prereq: PED 281 or PED 334.

PED 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: PED 334.

PED 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.

PED 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.

PED 410 Laboratory Techniques in Human Performance Analysis. 3 hrs
Measurement of human performance, including body composition, somatology, resting oxygen consumption, carbon dioxide production, respiration exchange ratio, caloric expenditure, maximum oxygen consumption, anaerobic metabolism, prediction of maximum aerobic capacity, graded exercise testing.  
Prereq: PED 300 and PED 310.

PED 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.

PED 425 Sports Medicine Practicum—Exercise Science. 2 hrs
Experience in measurement and establishing exercise programs based upon those measurements for the young, healthy adult. Students will spend approximately 120 hours for two credit hours.  
Prereq: PED 209, PED 300, PED 310, PED 410, sports medicine candidate.

PED 430 Basic Principles of Electrocardiography. 2 hrs
A two-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: PED 200 and ZOO 318.

PED 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.

PED 441 Organization and Administration of Physical Education. 3 hrs
Principles and objectives in physical education in the light of the needs, interests, and characteristics of public school students. Principles of organization and administration of programs in departments, classes, clubs, intramurals, athletics, and leadership. Functional construction of gymnasiums, swimming pools, athletic fields, and various facilities.  
Prereq: Junior or senior standing.

PED 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.

PED 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.

PED 481 Adapted Aquatics. 2 hrs
Aquatic instructional techniques in working with special populations including physically disabled, developmentally disabled, and the aging. Lectures, films, swimming skills, adaptations of swimming skills, and 20 hours of field work experience. Students with current WSI who meet course requirements will receive Adapted Aquatics Instructor certification. Students with no WSI but who meet course requirements will receive Adapted Aquatics Aide certification.
Physiological Education Major Courses

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>PEP 177/178/179 Special Topics</td>
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<tr>
<td>PEP 231 Service Teaching</td>
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<tr>
<td>PEP 233 Service Teaching</td>
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<tr>
<td>PEP 234 Field Hockey</td>
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<td>PEP 236 Intermediate Volleyball</td>
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<tr>
<td>PEP 238 International and Ethnic Games</td>
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<tr>
<td>PEP 277/278/279 Special Topics</td>
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<tr>
<td>PEP 320 Dance Workshop</td>
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<td>PEP 322 Dance Workshop</td>
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<td>PEP 331 Service Teaching</td>
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<td>PEP 377/378/379 Special Topics</td>
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<td>PEP 422 Dance Workshop</td>
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Recreation and Park Management and Therapeutic Recreation Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>REC 100 Introduction to Recreation and Leisure</td>
<td>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.</td>
<td>3</td>
</tr>
<tr>
<td>REC 165 Leisure Lifestyles</td>
<td>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.</td>
<td>3</td>
</tr>
<tr>
<td>REC 177/178/179 Special Topics</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.</td>
<td>1/2/3</td>
</tr>
<tr>
<td>REC 180 Activity Analysis and Adaptation</td>
<td>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.</td>
<td>2</td>
</tr>
<tr>
<td>REC 200 Recreation for Persons with Disabilities</td>
<td>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 field work experience.</td>
<td>3</td>
</tr>
<tr>
<td>REC 210 Camping for Special Populations</td>
<td>This course will provide practical experience for the student interested in working as a counselor at a camp for special populations. It will also provide experience in setting up a camp since the student will be responsible for the development of all materials and programming for a weekend camp.</td>
<td>2</td>
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<tr>
<td>REC 250/251/252/253 Field Work in Recreation/Therapeutic Recreation</td>
<td>An introductory course in field work. 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.</td>
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<tr>
<td>REC 260 Recreation Leadership</td>
<td>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.</td>
<td>3</td>
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<tr>
<td>REC 271 Park Maintenance</td>
<td>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.</td>
<td>3</td>
</tr>
<tr>
<td>REC 277/278/279 Special Topics</td>
<td>An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.</td>
<td>1/2/3</td>
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<tr>
<td>REC 280 Camping</td>
<td>History of organized camping; camping on federal and state recreation areas; information sources for camping; planning and preparation (equipment, clothing, meals, camp schedules, and camp programs). Skills areas for camping: map and compass, ropes and knot-tying, campfire construction, camp tool use and maintenance, tents. Safety reviewed for meal preparation, use of tools, and toxic plants and animals. Lecture, demonstrations, and student participation in a weekend camping trip.</td>
<td>2</td>
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<tr>
<td>REC 300 Principles of Therapeutic Recreation</td>
<td>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 adaption of specific activities. Lecture, experiential participation, and 30 hours of community field work.</td>
<td>3</td>
</tr>
<tr>
<td>REC 310 Leisure and the Older Adult</td>
<td>An 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</td>
<td>3</td>
</tr>
</tbody>
</table>
through activities at senior centers and long-term care facilities. Lecture, group assignments, and experiential participation.

**REC 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.

**REC 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: REC 200.*

**REC 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: REC 200.*

**REC 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: REC 260.*

**REC 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.*

**REC 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.

**REC 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: REC 200, REC 300, REC 340; or department permission.*

**REC 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.

**REC 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 REC 100, REC 200, REC 250, REC 260, REC 300, REC 340, REC 360, REC 400, REC 460, and REC; completion of 250 hours of fieldwork; grade point average of 2.50 overall and 2.75 in all major classes.*

**REC 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: REC 100.*

**REC 451 Park Maintenance and Management.** 2 hrs Principles, practices, and problems involved in the maintenance and management operation of recreation/park areas and facilities including the management process, legal issues, management analyses, and specific management techniques and procedures. Lectures, discussions, guest speakers, audio-visual, field visits, written and oral reports.

**REC 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: REC 100, REC 260, REC 360, or permission.*

**REC 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: REC 100, REC 260, REC 360, or permission.*

**REC 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.*

**REC 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.

**REC 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 REC 100, REC 200, REC 250, REC 260, REC 360, REC 460, and REC 465; completion of 250 hours of fieldwork. Overall grade point average of 2.50 and GPA of 2.75 in recreation and park management required and elective courses.*

**REC 497/498/499 Independent Study.** 1/2/3 hrs An opportunity for directed study in areas not covered in other course offerings, or greater in-depth of study in areas of continued
interest for the student. Students will be assigned to selected 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.

**LEADERSHIP AND COUNSELING**

Martha W. Tack  
Department Head  
13 Boone Hall  
487-0255/487-3270

**Professors:** Irene M. Ametrano, Helen E. R. Ditzhazy, John G. Pappas, Donna M. Schmitt, Martha W. Tack, Louis C. Thayer, John W. Waidley

**Associate Professors:** Beverly Geltree, William M. Hetrick, William J. Price

**Assistant Professors:** James E. Berry, Yvonne L. Calloway, John Gooden, Jane S. Goodman, Donald Hackmann, Alison J. Harmon, Christine E. Phelps, Sue A. Stickel, Jaclyn R. Tracy

**GRADUATE-LEVEL STUDY**

Students who wish to enter the educational leadership program or the guidance and counseling program are reminded that these are graduate-level programs. The undergraduate courses in these areas provide an introduction to the organization of American education, help students explore career opportunities, or provide an opportunity for the students to learn about basic counseling concepts and processes. Undergraduate students may not enroll in any graduate coursework 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 guidance and counseling 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 non-education 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.

**Advising coordinators:**  
Educational leadership: James E. Berry  
Guidance and counseling: John W. Waidley

**EDUCATIONAL LEADERSHIP COURSES**

**EDL 402 Organization of American Education.** 3 hrs  
A study of the organization and control of education in America to determine its purposes, structural characteristics and efficiency, and the various educational roles.  
*Prereq: One professional education class or department permission.*

**EDL 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.*

**GUIDANCE AND COUNSELING COURSES**

**G&C 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).
G&C 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.

G&C 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
Kathleen S. Quinn
Department Head
215 Rackham Building
487-3300

Professors: Henry L. Gottwald, Ronald Hoodin, Marylyn E. Lake, Nora Martin, Sandra McClennen, Gary B. Navarre, James R. Palasek, Dale L. Rice

Associate Professors: George J. Barach, Michael Beebe, Joe E. Coyner, Dorothea French, Carole Gorenflo, Robert Kreger, Angela Massenberg, Gayle L. Nash, Kathleen S. Quinn, Marvin L. Skore, Margaret Smith, Florence E. VanVoorhees

Assistant Professors: Roberta Anderson, Lawrence M. Bemish, Nancy L. Halmhuber, Lynne A. Rocklage, Mimi Salamat, Kenneth Schatz, Lech Wisniewski

The Special Education department is among the oldest and most prestigious preparation programs for teachers of the handicapped 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 inservice 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 development activities that focus on the design and devel-
ADMISSION AND CONTINUANCE CRITERIA (FOR ALL PROGRAMS EXCEPT SPEECH AND LANGUAGE IMPAIRED)

1. Completion of 56 semester hours of college credit and with an EMU grade point average of 2.50 or better.
2. Completion of SGN 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: SEI 301 Emotionally Impaired Children and Adolescents.
   b. Hearing impaired: (see statement under Hearing Impaired).
   c. Mentally impaired: SMI 350 Introduction to Mental Retardation.
   d. Physically and otherwise health impaired: SPI 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 continuation 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:
   - Fall semester ........................................... February 15
   - 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, and membership in the underrepresented gender.

To be allowed to continue in the speech-language pathology program, the student must meet the following:

opment 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, industrial 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
  Hearing impaired
  Mentally impaired
  Physically and otherwise health impaired
  Speech and language impaired*
  Visually impaired

*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 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: Joe Coyner, Robert Kreger, Dale Rice, Marvin Skore, Margaret Smith
  Hearing impaired: Dorothea French, Gayle Nash
  Mentally impaired: Marylyn Lake, Nora Martin, Sandra McClennen
  Physically and otherwise health impaired: Roberta Anderson
  Speech and language impaired: Ronald Hoodin, Angela Masenberg, James Palasek
  Visually impaired: George Barach
  Undeclared majors, transfers and foreign students: Roberta Anderson

ADMISSION

Admission requirements to the University, the College of Education and the department of Special Education must be met by students intending to major in this department. However, students may indicate their intention to major in special education upon entrance to the University. Formal application for admission to any of the department’s 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 College of Education Program area faculty will determine admission.
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. All 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 two courses 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 SLI courses for 1 or 2 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 judgments 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 graduation 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**

Field work in both general and special education is required. Pre-student teaching experiences are required of all candidates pursuing a teaching certificate. (See Pre-Student Teaching, page 228.) Majors 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 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 either an elementary or secondary special preparation endorsement except in the area of speech and language impaired. The speech and language impaired program is a 5-year MA degree program in which K-12 endorsement is granted.

Each of the programs of study in the Special Education department 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.

Graduate study leads to the master's degree in special education and the specialist's degree in school psychology and special education. The MA and specialist's degrees are described in the Graduate Catalog.

**TEACHING PROGRAMS**

**EMOTIONALLY IMPAIRED**

**ELEMENTARY TEACHER CERTIFICATION**

Successful completion of this course of study, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary Provisional Certificate endorsed in emotionally impaired, certification code "SE," and, depending on the minor selected, an additional endorsement. The certification testing covering this field are #83, "Elementary Education," and #59, "Emotionally Impaired."

**Basic Studies**

- I-B-1. ENG 121 English Composition (3)
- I-B-2. Basic Studies requirement. See inside back cover
- I-B-4. MTH 108-109 Mathematics for Elementary Teachers I-II (6)
- I-B-5. Basic Studies requirement. See inside back cover
- II-B-1. Basic Studies requirement. See inside back cover
- II-B-2. PSY 101 General Psychology (3)
- II-B-3. BIO 105 Biology and the Human Species (4)
- III-B-1. PLS 112 American Government (3)
- III-B-2. Basic Studies requirement. See inside back cover
- III-B-3. SOC 105 Introductory Sociology (3)
- III-B-4. Basic Studies requirement. See inside back cover
- IV-B-1. Basic Studies requirement. See inside back cover
- IV-B-2. Basic Studies requirement. See inside back cover
- IV-B-3. Basic Studies requirement. See inside back cover
- IV-B-4. Basic Studies requirement. See inside back cover

**Physical education, military science, or equivalent (2)**

Credit hours in Basic Studies: ........................................... 52

**Specialty studies**

*One of:

A minor from the approved list (20) (see p. 230)
A "planned program" (30) (see p. 270)

**SEI 240 Introductory Clinical Experiences in Emotional Impairment (3)**
**SEI 251 Education of Exceptional Children (3)**
**IE 252 Pre-vocational/Vocational Special Needs Program (4)**
**PED 257 Physical Education for the Classroom Teacher (2)**
**EDP 325 Life Span Human Growth and Development (4)**
The following courses require formal admission to the teacher education program:
CUR 304 Curriculum and Methods: Elementary (3)
RDG 314 Teaching Reading in the Elementary School (6)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
MTH 381 The Teaching of Mathematics K-6 (3)
SGN 390 Measurement and Diagnosis in Special Education (3)
SEI 401 Programming, Methods, and Curriculum for the Elementary Emotionally Impaired Child (4)*
SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SGN 481 Adaptive Technology in Special Education (2)
EDU 491 Student Teaching (10)*
EDU 499 Student Teaching (6)
SGN 491 Seminar for Teachers of Special Education (2)

Credit hours in Professional Studies: 62

Total credit hours required: 153

A course required for and applicable to major.

*Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.

**The "planned program" courses overlap with other required courses by approximately 20 hours.

EMOTIONALLY IMPAIRED
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in emotionally impaired, certification code "SE," and, depending on the minor selected, an additional endorsement. The certification tests covering this field are #59, "Emotionally Impaired," and the minor area.

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. ENG 326 Research Writing (3)
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. PSY 101 General Psychology (3)
II-B-3. BIO 105 Biology and the Human Species (4)
III-B-1. PLS 112 American Government (3)
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. SOC 105 Introductory Sociology (3)
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Credit hours in Basic Studies: 49

Specialty Studies
SGN 271 Language Development and Speech Disorders in Special Populations (2)
SEI 301 Emotionally Impaired Children and Adolescents (4)*
PSY 322 Psychology of Adolescence (3)*
CRM 354 Juvenile Delinquency (3)*
PSY 360 Abnormal Psychology (3)*
**SGN 395 Special Needs Persons: School, Family, and Community Interaction (3)

One of:
SOC 202 Social Problems (3)

SOC 402 Group Dynamics (3)
**SEI 449 Seminar: Current Topics in Emotional Impairment (2)*
A minor from the approved list (see p. 230)

Subtotal, Specialty Studies: 43

Professional Studies
Approved pre-student teaching field experiences (0)
SGN 251 Education of Exceptional Children (3)
IE 252 Vocational/Vocational Special Needs Program (4)
PED 257 Physical Education for the Classroom Teacher (2)
EDP 325 Life Span Human Growth and Development (4)
SEI 240 Introductory Clinical Experiences in Emotional Impairment (3)*

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
SGN 390 Measurement and Diagnosis in Special Education (3)
SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SGN 481 Adaptive Technology in Special Education (2)
SGN 485 Methods and Curriculum: Adolescents and Young Adults with Special Needs (2)*
SEI 488 Programming, Methods, and Curriculum for Young Emotionally Impaired Youth (4)*
The appropriate secondary special methods course (see p. 232) (3)
EDU 491 Student Teaching (10)*
EDU 499 Student Teaching (6)
SGN 491 Seminar for Teachers of Special Education (2)

Credit hours in Professional Studies: 61

Total credit hours required: 153

*Course required for and applicable to major.

**Admission to the teacher education program required.

All students are considered provisional majors until such time as they successfully complete SHI 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.

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. ENG 326 Research Writing (3)
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover

Credit hours in Basic Studies: 49

Specialty Studies
I-B-1. PSY 101 General Psychology (3)
I-B-2. PSY 322 Psychology of Adolescence (3)*
I-B-3. ENG 326 Research Writing (3)
I-B-4. MTH 108-109 Mathematics for Elementary Teachers I-II (6)

Heard Impaired
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary Provisional Certificate endorsed in hearing impaired, certification code "SL," and, depending on the minor selected, an additional endorsement. The certification tests covering this field are #83, "Elementary Education," and #62, "Hearing Impaired."

All students are considered provisional majors until such time as they successfully complete SHI 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.

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. ENG 326 Research Writing (3)
I-B-4. MTH 108-109 Mathematics for Elementary Teachers I-II (6)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
SGN 390 Measurement and Diagnosis in Special Education (3)
SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SGN 481 Adaptive Technology in Special Education (2)
SGN 485 Methods and Curriculum: Adolescents and Young Adults with Special Needs (2)*
SEI 488 Programming, Methods, and Curriculum for Secondary Emotionally Impaired Youth (4)*
The appropriate secondary special methods course (see p. 232) (3)
EDU 491 Student Teaching (10)*
EDU 499 Student Teaching (6)
SGN 491 Seminar for Teachers of Special Education (2)

Credit hours in Professional Studies: 61

Total credit hours required: 153

*Course required for and applicable to major.

**Admission to the teacher education program required.

All students are considered provisional majors until such time as they successfully complete SHI 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.

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. ENG 326 Research Writing (3)
I-B-4. MTH 108-109 Mathematics for Elementary Teachers I-II (6)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
SGN 390 Measurement and Diagnosis in Special Education (3)
SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SGN 481 Adaptive Technology in Special Education (2)
SGN 485 Methods and Curriculum: Adolescents and Young Adults with Special Needs (2)*
SEI 488 Programming, Methods, and Curriculum for Secondary Emotionally Impaired Youth (4)*
The appropriate secondary special methods course (see p. 232) (3)
EDU 491 Student Teaching (10)*
EDU 499 Student Teaching (6)
SGN 491 Seminar for Teachers of Special Education (2)
Specialty Studies

SHI 228 Education of Hearing-Impaired Students (3)*
SLI 316 Speech Science (5)*
SLI 337 Language Acquisition (3)*
SHI 375 Fundamentals of Sign Communication (2)*
**SHI 391 Language for Hearing-Impaired Students (4)*
SHI 392 Introduction to Audiology (2)*
**SHI 394 Aural Habilitation/Rehabilitation (3)*
** SGN 395 Special Needs Persons: School, Family, and Community Interaction (3)
**SHI 435 Phonetics and Hearing Impairment (2)*
**SHI 436 Speech for the Hearing Impaired (2)*
**SHI 437 Adaptive Curriculum for Hearing-Impaired Students (3)*

One of:
A minor from the approved list (20*) (see p. 230)
A "planned program" (30*) (see p. 270)

Subtotal, Specialty Studies: .......................................................... 51*

Professional Studies

Approved pre-student teaching field/clinical experiences (0)
SGN 251 Education of Exceptional Children (3)
IE 232 Prevocational/Vocational Special Needs Program (4)
PED 257 Physical Education for the Classroom Teacher (2)
EDP 325 Life Span Human Growth and Development (4)

The following courses require formal admission to the teacher education program:
CUR 304 Curriculum and Methods: Elementary (3)
RDG 314 Teaching Reading in the Elementary School (6)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
MTH 381 The Teaching of Mathematics K-6 (3)
SHI 387 Introductory Practicum with Hearing-Impaired Students (1)*
SGN 390 Measurement and Diagnosis in Special Education (3)
SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SHI 481 Adaptive Technology in Special Education (2)
SHI 487 Speech Practicum with Hearing-Impaired Students (1)*
EDU 491 Student Teaching (10)*
SGN 491 Seminar for Teachers of Special Education (2)
EDU 499 Student Teaching (6)

Credit hours in Professional Studies: .......................................... 58

Total credit hours required: ......................................................... 161

*Course required for and applicable to major.
*Could be less, depending on the minor and the possible applicability of Basic Studies courses to the minor.
*The "planned program" courses overlap with other required courses by approximately 20 hours.

HEARING IMPAIRED
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in hearing impaired, certification code "SL," and, depending on the minor selected, an additional endorsement. The certification tests covering this field are #62, "Hearing Impaired," and the minor area.

All students are considered provisional majors until such time as they successfully complete SHI 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.

Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. ENG 326 Research Writing (3)
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover

II-B-1. Basic Studies requirement. See inside back cover
II-B-2. PSY 101 General Psychology (3)
II-B-3. BIO 105 Biology and the Human Species (4)
III-B-1. PL 112 American Government (3)
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: .................................................. 49

Specialty Studies

SHI 228 Education of Hearing-Impaired Students (3)*
SLI 316 Speech Science (5)*
SLI 337 Language Acquisition (3)*
SHI 375 Fundamentals of Sign Communication (2)*
**SHI 391 Language for Hearing-Impaired Students (4)*
SHI 392 Introduction to Audiology (2)*
**SHI 394 Aural Habilitation/Rehabilitation (3)*
** SGN 395 Special Needs Persons: School, Family, and Community Interaction (3)
**SHI 435 Phonetics and Hearing Impairment (2)*
**SHI 436 Speech for the Hearing Impaired (2)*
**SHI 437 Adaptive Curriculum for Hearing-Impaired Students (3)*

A minor from the approved list (see p. 230)

Subtotal, Specialty Studies: .......................................................... 51*

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
SGN 251 Education of Exceptional Children (3)
IE 232 Prevocational/Vocational Special Needs Program (4)
PED 257 Physical Education for the Classroom Teacher (2)
EDP 325 Life Span Human Growth and Development (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
SHI 387 Introductory Practicum with Hearing-Impaired Students (1)*
Credit hours in Basic Studies: .................................................. 149

**MENTALLY IMPAIRED**

**ELEMENTARY TEACHER CERTIFICATION**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary Provisional Certificate endorsed in mentally impaired, certification code "SA," and, depending on the minor selected, an additional endorsement. The certification tests covering this field are #83, "Elementary Education," and #56, "Mentally Impaired."

**MENTALLY IMPAIRED**

**SECONDARY TEACHER CERTIFICATION**

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in mentally impaired, certification code "SA," and, depending on the minor selected, an additional endorsement. The certification tests covering this field are #56, "Mentally Impaired," and the minor area.

Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. ENG 326 Research Writing (3)
I-B-4. MTH 108-109 Mathematics for Elementary Teachers I-II (6)
I-B-5. Basic Studies requirement. See inside back cover
I-B-6. Basic Studies requirement. See inside back cover
I-B-7. PSY 101 General Psychology (3)
I-B-8. BIO 105 Biology and the Human Species (4)
I-B-9. PLS 112 American Government (3)
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Credit hours in Basic Studies: .................................................. 52

Specialty Studies

SGN 271 Language Development and Speech Disorders in Special Populations (2)
SGN 350 Introduction to Mental Retardation (3)*

**SGN 395 Special Needs Persons: School, Family, and Community Interaction (3)**
**SMI 427 Educating the Elementary Student with Mild Retardation (2)**
**SLD 468 Education of Children with Learning Disabilities (4)**
**SMI 483 Education of Students with Moderate or Severe Retardation (4)**

One of:
A minor from the approved list (20*) (see p. 230)
A "planned program" (30*) (see p. 270)

Subtotal, Specialty Studies: .................................................. 36

Professional Studies

Approved pre-student teaching field/clinical experiences (0)
SMI 1240 Preclinical: Mentally Impaired (3)*
SGN 251 Education of Exceptional Children (3)
IE 252 Prevocational/Vocational Special Needs Program (4)
PED 257 Physical Education for the Classroom Teacher (2)
EDP 325 Life Span Human Growth and Development (4)

The following courses require formal admission to the teacher education program:
CUR 304 Curriculum and Methods: Elementary (3)
RKG 314 Teaching Reading in the Elementary School (6)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
MTH 381 The Teaching of Mathematics K-6 (3)
SMI 429 Curriculum Design and Education Programs for Students with Mild Retardation (3)
SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SGN 481 Adaptive Technology in Special Education (2)
SMI 491 Seminar for Teachers of Special Education (2)
EDU 491 Student Teaching (10*)
EDU 499 Student Teaching (6)

Credit hours in Professional Studies: ...................................... 61

Total credit hours required: .................................................. 149

*Course required and applicable to major.
*Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.

*Course required for and applicable to major.
*Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.

Note: "Basic Studies" courses overlap with other required courses by approximately 20 hours.
Examinations in Teacher Certification

Specialty Studies

Physcal education, military science, or equivalent (2)

Subtotal, Specialty Studies: ........................................ 34

Credit hours in Basic Studies: ........................................... .49

Professional Studies

Credit hours in Professional Studies:

Total credit hours required: ................................................. 145

Basic Studies courses to the minor.

••Admission

SPECIAL EDUCATION

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

SGN 271 Language Development and Speech Disorders in

Physical and Health Impairments

SGN 395 Special Needs Persons: School, Family, and Com-

cally and Health Impaired (4)'

SGN 390 Measurement and Diagnosis in Special Educa-

CUR 304 Curriculum and Methods: Elementary (3)

SFD 328 Social Aspects of Teaching (3)

SPN 461 Classroom Management and Intervention Strategies

SPN 486 Recitation and Field Experience with Adoles-

SPN 485 Methods and Curriculum: Adolescents and Young Adults: Mentally Impaired, Physi-

SPI 310 Developmental Science for Teachers of the Physi-

SGN 485 Methods and Curriculum: Adolescents and Young Adults: Physically Impaired, Hearing Impaired, or Visually

RDG 314 Teaching Reading in the Elementary School (6)

EDM 345 Media for the Classroom Teacher (1)

MTH 381 The Teaching of Mathematics K-6 (3)

SON 481 Adaptive Technology in Special Education (2)

SON 480 Introduction to Mental Retardation (3)'

SON 482 Pathology of Physical and Health Impairments

EDU 491 Student Teaching (10)

SDM 499 Student Teaching (10)

EDU 498 Externship (10)

ENG 260 Research Writing (3)

EDM 350 Media for the Classroom Teacher (1)

MTH 108-109 Mathematics for Elementary Teachers I-II (6)

EDM 381 The Teaching of Mathematics K-6 (3)

EDM 350 Media for the Classroom Teacher (1)

EDM 345 Media for the Classroom Teacher (1)

EDM 350 Media for the Classroom Teacher (1)

EDM 350 Media for the Classroom Teacher (1)
SGN 390 Measurement and Diagnosis in Special Education (3)
SPI 414 Educational Strategies for Teachers of the Physically Impaired (4)*
SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SGN 481 Adaptive Technology in Special Education (2)
EDU 491 Student Teaching (10)*
SGN 491 Seminar for Teachers of Special Education (2)
EDU 499 Student Teaching (6)

Credit hours in Professional Studies: ........................................ 62

Total credit hours required: ............................................... 153

*Course required for and applicable to major.

**Admission to the teacher education program required.

†Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.

††The "planned program" courses overlap with other required courses by approximately 20 hours.

PHYSICALLY AND OTHERWISE HEALTH IMPAIRED

SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in physically impaired, certification code "SC," and, depending on the minor selected, an additional endorsement. The certification tests covering this field are #58, "Physically and Otherwise Health Impaired," and the minor area.

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. ENG 326 Research Writing (3)
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. PSY 101 General Psychology (3)
II-B-3. BIO 105 Biology and the Human Species (4)
II-B-4. Basic Studies requirement. See inside back cover
Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ........................................... 49

Specialty Studies
SGN 271 Language Development and Speech Disorders in Speech-Impaired Populations (2)
SPI 310 Developmental Sciences for Teachers of the Physically and Health Impaired (4)*
SMI 350 Introduction to Mental Retardation (3)*
**SPI 360 Pathology of Physical and Health Impairments (3)*
**SGN 395 Special Needs Persons: School, Family, and Community Interaction (3)
**SPI 412 Ancillary Services and Health Procedures for Teachers of Physically Impaired (2)*
**SLD 468 Education of Children with Learning Disabilities (2)*
A minor from the approved list (see p. 230)

Subtotal, Specialty Studies: .................................................. 39†

Professional Studies
Approved pre-student teaching field/clinical experiences (0)
SPI 240 Preclinical Experiences—POHI (3)*
SGN 251 Education of Exceptional Children (3)
IE 252 Prevocational/Vocational Special Needs Program (4)
PED 257 Physical Education for the Classroom Teacher (2)
EDP 325 Life Span Human Growth and Development (4)

The following courses require formal admission to the teacher education program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
SGN 390 Measurement and Diagnosis in Special Education (3)
The appropriate secondary special methods course (see p. 232) (3)
SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SGN 481 Adaptive Technology in Special Education (2)
SGN 485 Methods and Curriculum: Adolescents and Young Adults with Special Needs (2)*
SGN 486 Recitation and Field Experience with Adolescents and Young Adults: Mentally Impaired, Physically Impaired, Hearing Impaired, or Visually Impaired (2)*
EDU 491 Student Teaching (10)*
SGN 491 Seminar for Teachers of Special Education (2)
EDU 499 Student Teaching (6)

Credit hours in Professional Studies: .................................... 59

Total credit hours required: ............................................. 147

*Course required for and applicable to major.

**Admission to the teacher education program required.

†Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.

SPEECH AND LANGUAGE IMPAIRED

ALL GRADE LEVELS TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for either the Michigan Department of Education Elementary Provisional Certificate endorsed in speech/language impaired, certification code "SB" or the Michigan Department of Education Secondary Provisional Certificate endorsed in speech/language impaired, certification code "SB." For elementary, the certification tests covering this field are #83, "Elementary Education," and #57, "Speech and Language Impaired." For secondary, the certification tests covering this field are #57, "Speech and Language Impaired," and the minor area.

The program in speech and language impaired is a five and one-half to six-year course of study culminating in a master's degree that conforms to the requirements of the American Speech-Language-Hearing Association. Students may elect a teacher training or non-teacher training track.

The undergraduate program consists of five semesters of speech pathology coursework (approximately 36 credit hours) in addition to those hours required by the University to satisfy Basic Studies, teacher certification (for those electing a teacher certification track), and minor requirements. Students must elect either a teacher certification track or healthcare program of study. In general, speech-language pathology (SLP) major academic courses are offered during the fall, winter, and a combination of spring-summer semesters. Each student should plan to attend at least one spring-summer term.

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 coursework 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 during their first year 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.

Upon completion of a minimum of 124 semester hours reflecting all requirements in Basic Studies and undergraduate major and minor sequences, the student will be granted the Bachelor of Science degree without certification. For those students electing the teacher training track, certification is recommended upon completion of the master's degree. Graduate level courses are those numbered 500 and above. The endorsement is K-12.

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. ENG 324 Principles of Technical Communication (3) or ENG 326 Research Writing (3)
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. CSC 136 Computers for the Non-Specialist (3)
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. PSY 101 General Psychology (3)
II-B-3. BIO 105 Biology and the Human Species (4)
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. SOC 105 Introductory Sociology (3)
III-B-4. SOC 202 Social Problems (3)
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Credit hours in Basic Studies: ................................. 49

Specialty Studies
PSY 322 Psychology of Adolescence (3)
PSY 360 Abnormal Psychology (3)
RDG 563 Foundations of Reading Development (4)
SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SGN 481 Adaptive Technology in Special Education (3)
**SHI 375 Fundamentals of Sign Communication (2)
SHI 392 Introduction to Audiology (2)
SHI 394 Auditory Training and Speech Reading (3)
SLD 468 Education of Children with Learning Disabilities (2)
SLJ 316 Speech Science (5)
SLJ 334 Applied Phonetics (3)
SLJ 335 Communication Disorders (3)
SLJ 337 Language Acquisition (3)
SLJ 340 Management of Phonological Disorders (3)
SLJ 341 Directed Observation in Speech Pathology (1)
SLJ 342 Management of Language Disorders (3)
SLJ 452 Voice (3)
SLJ 454 Stuttering (3)
Two of:
G&C 450 An Introduction: Counseling Concepts and Skills (3)
PSY 340 Psychological Perspectives on Prejudice and Discrimination (3)
PSY 358 Cognitive Processes (3)
SOC 308 Social Psychology (3)

Subtotal, Specialty Studies: ........................................... 54

Professional Studies
100 clock hours of approved pre-student teaching field experience (0)
**CUR 305 Curriculum and Methods: Secondary (3)
EDP 325 Life Span Human Growth and Development (4)
**RDG 311 Teaching Reading in the Secondary School (3)
**SFD 328 Social Aspects of Teaching (3)
SGN 251 Education of Exceptional Children (3)
SLJ 343 Clinical Practice in Speech Pathology I (2)
SLJ 344 Clinical Practice in Speech Pathology II (2)
One of:
PSY 205 Quantitative Methods in Psychology (3)
**SGN 390 Measurement and Diagnosis in Special Education (3)

Credit hours in Professional Studies: .............................. 23

The courses listed above are required for completion of the undergraduate degree. The total minimum hours is 126.

The courses listed below are required for the master's degree and eligibility for recommendation for certification:

Specialty Studies
SLJ 508 Multicultural/Multilingual Communication Development and Disorders (3)
SLJ 555 Neuroanatomy and Physiology for the Speech Pathologist (2)
SLJ 568 Diagnostic Methods in Speech, Language, and Hearing (3)
SLJ 578 Audiometric Testing (3)
SLJ 607 Colloquium in Speech-Language Pathology (2)
SLJ 612 Motor Speech Disorders (2)
SLJ 614 Aphasia (3)
SLJ 616 Experiments in Speech-Language Pathology (3)
SLJ 620 Consulting and Interviewing in Speech Pathology (3)
SLJ 622 Augmentative Communication (2)
SLJ 624 Neurogenic Communicative Disorders (2)

Subtotal, Specialty Studies: ........................................... 28

Professional Studies
SLJ 687 Clinical Internship (2)
SLJ 689 Public School Internship (4)
SLJ 694 Seminar in Professional Issues in Speech-Language Pathology (2)

Credit hours in Professional Studies: .............................. 10

Electives
Up to 5 hours from SLJ 590, 595, 618 to complete at least 36 semester hours at the graduate level

Total credit hours required: .......................................... 162

**Admission to the teacher education program required.
VISUALLY IMPAIRED
ELEMENTARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary Provisional Certificate endorsed in visually impaired, certification code "SK," and, depending on the minor selected, an additional endorsement. The certification tests covering this field are #83, "Elementary Education," and #61, "Visually Impaired."

**Basic Studies**

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. ENG 326 Research Writing (3)
I-B-4. MTH 108-109 Mathematics for Elementary Teachers I-II (6)
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. PSY 101 General Psychology (3)
II-B-3. BIO 105 Biology and the Human Species (4)
III-B-1. PLS 112 American Government (3)
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

**Credit hours in Basic Studies:** ........................................... 52

**Specialty Studies**

SGN 271 Language Development and Speech Disorders in Special Populations (2)
**SGN 395 Special Needs Persons: School, Family, and Community Interaction (3)**
SVI 365 Braille (3)*
SVI 366 The Eye and Vision—Anatomy and Physiology (2)*
SVI 368 Mobility Training for the Visually Impaired (2)*
SVI 369 Community Considerations for the Visually Impaired (3)*
**SVI 369 Braille II: Nemeth Code (3)*
**SVI 367 Education of Children with Impaired Vision (2)*
**SVI 469 Electronic Communication for the Visually Impaired (3)*

One of:
- A minor from the approved list (20)* (see p. 230)
- A "planned program" (30)* (see p. 270)

**Subtotal, Specialty Studies:** ........................................... 431

**Professional Studies**

Approved pre-student teaching field/clinical experiences (0)
SGN 251 Education of Exceptional Children (3)
IE 252 Vocational/Vocational Special Needs Program (4)
PED 257 Physical Education for the Classroom Teacher (2)
EDP 325 Life Span Human Growth and Development (4)

The following courses require formal admission to the teacher education program:
CUR 304 Curriculum and Methods: Elementary (3)
RDG 314 Teaching Reading in the Elementary School (6)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
MTH 381 The Teaching of Mathematics K-6 (3)
SGN 590 Measurement and Diagnosis in Special Education (3)

SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SVI 464 Methods of Teaching the Blind (3)*
SGN 481 Adaptive Technology in Special Education (2)
EDU 491 Student Teaching (10)*
SGN 491 Seminar for Teachers of Special Education (2)
EDU 499 Student Teaching (6)

**Credit hours in Professional Studies:** .................................. 58

Total credit hours required: ................................................. 153

*Course required for and applicable to major.
*Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.
*The "planned program" courses overlap with other required courses by approximately 20 hours.

VISUALLY IMPAIRED
SECONDARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in visually impaired, certification code "SK," and, depending on the minor selected, an additional endorsement. The certification tests covering this field are #81, "Visually Impaired," and the minor area.

**Basic Studies**

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. ENG 326 Research Writing (3)
I-B-4. Basic Studies requirement. See inside back cover
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. PSY 101 General Psychology (3)
II-B-3. BIO 105 Biology and the Human Species (4)
III-B-1. PLS 112 American Government (3)
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Basic Studies requirement. See inside back cover
III-B-4. Basic Studies requirement. See inside back cover
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

**Credit hours in Basic Studies:** ........................................... 49

**Specialty Studies**

SGN 271 Language Development and Speech Disorders in Special Populations (2)
SVI 365 Braille (3)*
SVI 366 The Eye and Vision—Anatomy and Physiology (2)*
SVI 368 Mobility Training for the Visually Impaired (2)*
SVI 369 Community Considerations for the Visually Impaired (3)*
**SGN 395 Special Needs Persons: School, Family, and Community Interaction (3)**
**SVI 465 Braille II: Nemeth Code (3)*
**SVI 467 Education of Children with Impaired Vision (2)*
**SVI 469 Electronic Communication for the Visually Impaired (3)*

A minor from the approved list (see p. 230) 20*

**Subtotal, Specialty Studies:** ........................................... 43

**Professional Studies**

Approved pre-student teaching field/clinical experiences (0)
SGN 251 Education of Exceptional Children (3)
IE 252 Vocational/Special Needs Program (4)
PED 257 Physical Education for the Classroom Teacher (2)
EDP 325 Life Span Human Growth and Development (4)

Prereq: An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.

The following courses require formal admission to the student teaching program:
CUR 305 Curriculum and Methods: Secondary (3)
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
SGN 390 Measurement and Diagnosis in Special Education (3)

The appropriate special methods course (see p. 232) (3)
SGN 461 Classroom Management and Intervention Strategies for Handicapped Students (3)
SVI 464 Methods of Teaching the Blind (3)*
SGN 481 Adaptive Technology in Special Education (2)
SGN 485 Methods and Curriculum: Adolescents and Young Adults with Special Needs (2)*
SGN 486 Recreation and Field Experience with Adolescents and Young Adults: Mentally Impaired, Physically Impaired, Hearing Impaired, or Visually Impaired (2)*
EDU 491 Student Teaching (10)*
SGN 491 Seminar for Teachers of Special Education (2)
EDU 499 Student Teaching (6)

Credit hours in Professional Studies: ........................................ 59
Total credit hours required: .................................................. 151

*Course required for and applicable to major.
**Admission to the teacher education program required.
1Could be less, depending on the minor and the possible application of Basic Studies courses to the minor.

"PLANNED PROGRAM” COURSES FOR SPECIAL EDUCATION-ELEMENTARY PROGRAMS
ESC 302 Elementary School Science (3)
CUR 304 Curriculum and Methods: Elementary (3)
RDG 314 Teaching Reading in the Elementary School (6)
EDP 325 Life Span Human Growth and Development (4)
SFD 328 Social Aspects of Teaching (3)
EDM 345 Media for the Classroom Teacher (1)
GEO 348 Teaching Social Studies in Elementary Schools (3)
MTH 381 The Teaching of Mathematics K-6 (3)

Four hours from:
LIT 207 Introduction to Children’s Literature (3)
PED 210 Lifespan Wellness and Fitness (3)
HED 320 Health Education in the Elementary Grades (2)
FA 300 Art Integration for the Elementary Teacher (4)
FA 101 Introduction to Art (3)
CTA 222 Drama and Play in Human Experience (3)
MUS 104 Elements of Music (2)
MUS 224 Recreational Music (2)
MUS 103 Introduction to Music Therapy (2)

Total: ....................................................................................... 30

EMOTIONALLY IMPAIRED
SEI 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.

SEI 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.

SEI 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.

SEI 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; SEI 240; SGN 251 is advised. Not open to students on academic probation.

SEI 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.

SEI 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: SEI 301 and SGN 461; admission to the teacher education program.

SEI 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: SEI 401 or SEI 488; admission to the teacher education program.

SEI 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: SEI 301 and SGN 461; admission to the teacher education program. SGN 485 (may be taken concurrently).

LEARNING DISABLED
SLD 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: SGN 251; admission to the teacher education program; senior standing.

SLD 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

SLI 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.

SLI 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.

SLI 316 Speech Science. 5 hrs
Anatomy and physiology of normal speech production, consideration of speech as motor behavior and as an acoustical phenomenon. Physiological and acoustical investigations of speech and voice, physiological and acoustic measurement of speech.
Coreq: SLI 337 and SLI 341.

SLI 334 Applied Phonetics. 3 hrs
Introduction to the physiological and acoustical characteristics of speech. Classification and production of English speech sounds. Phonemic transcription, including some analysis of deviant speech. Lab experiences weekly. Intended primarily for speech correction majors. No students on academic probation.
Coreq: SLI 335.

SLI 335 Communication Disorders. 3 hrs
A study of the major communication disorders as deviations from normal physical and social behavior. Etiology and symptomatology.
Coreq: SLI 334.

SLI 337 Language Acquisition. 3 hrs
The development of speech, language, and hearing from birth. The interrelationship between cognitive development and language acquisition and usage. Developmental processes and milestones in phonology, morphology, syntax, and semantics as a basis for understanding the effects of speech, language, and hearing problems of the individual.
Coreq: SLI 316 and SLI 341.

SLI 340 Management of Phonological Disorders. 3 hrs
Diagnosis and treatment of functional articulation problems, including the articulation deficits associated with the cleft palate, cerebral palsy, and hearing impairments.
Prereq: SLI 335 and SLI 334. Coreq: SLI 342.

SLI 341 Directed Observation in Speech Pathology. 1 hr
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 SLI 337 and SLI 316.

SLI 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 preschool, elementary, and secondary school-aged individuals.
Prereq: SLI 334, SLI 337, SLI 316, and SLI 335.

SLI 343 Clinical Practice in Speech Pathology I. 2 hrs
A minimum of 60 clock hours of supervised clinical experience with children and adults in individual and group settings. Functional articulation, voice disorders and rhythm problems.
Prereq: SLI 340, SLI 342, department permission.

SLI 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: SLI 343 and department permission.

SLI 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.

SLI 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: SLI 343.

SLI 454 Stuttering. 3 hrs
Caustion, symptomatic, and remedial procedures of stuttering; specific therapy procedures in the clinic, the school, and the home.
Prereq: SLI 343.

SLI 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.

GENERAL SPECIAL EDUCATION COURSES

SGN 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.

SGN 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.

SGN 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 SLI 337 Language Acquisition.

SGN 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.
SGN 300 Exceptional Children in the Regular Classroom.  1 hr
Characteristics of the exceptional learner including impairments of hearing, vision, speech, intelligence, behavior, and physical abilities. Considerations and implications of the educational, social, and psychological experience for the exceptional learner in the regular classroom. Not open to Special Education majors.

SGN 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.

SGN 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, socio-emotional 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: SGN 251; admission to the teacher education program.

SGN 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: SGN 251; admission to the teacher education program.

SGN 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: SGN 251; admission to the teacher education program.

SGN 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.

SGN 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, switchable devices, alternative keyboards for the computer, (touch pads, 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: SGN 251; a computer course; admission to the teacher education program.

SGN 485 Methods and Curriculum: Adolescents and Young Adults with Special Needs.  2 hrs
This course is intended for all students seeking a secondary special education endorsement and interested in working with adolescents or young adults with cognitive, sensory, or physical limitations. Students will develop knowledge and awareness about secondary and postsecondary special education programs, curriculum, and services that address the intellectual, social, emotional, physical, and vocational needs of this population.
Prereq: Admission to the teacher education program.

SGN 486 Recitation and Field Experience with Adolescents and Young Adults: Mentally Impaired, Physically Impaired, Hearing Impaired, or Visually Impaired.  2 hrs
Adaptation and application of curriculum and methods appropriate to the student's field of study (major). Students will complete a field experience at the secondary level in the area of disability for which he/she is to be endorsed.
Prereq: Admission to the teacher education program.

SGN 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.

SGN 497/498/499 Independent Study.  1/2/3 hrs
Directed study of a problem or group of problems in special education.
Prereq: Department permission.

SHI 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.

SHI 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.
Prereq: or coreq: SGN 251

SHI 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.

SHI 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 school programs will be required.
SHI 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.

SHI 387 Introductory Practicum with Hearing-Impaired Students. 1 hr
Thirty clock hours of supervised observation and work with students with hearing impairments.
Prereq: SHI 228; admission to the teacher education program.

SHI 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: SHI 228; admission to the teacher education program.

SHI 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: SHI 316.

SHI 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: SHI 316; admission to the teacher education program.

SHI 435 Phonetics and Hearing Impairment. 2 hrs
Prereq: SHI 316; admission to the teacher education program.

SHI 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: SHI 435; admission to the teacher education program.

SHI 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: SHI 391; admission to the teacher education program.

SHI 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.

SHI 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: SHI 436; admission to the teacher education program.

SMI 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.

SMI 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.

SMI 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.

SMI 340 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: SGN 251, PSY 101.

SMI 350 Introduction to Mental Retardation. 3 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: SGN 461; SGN 481; admission to the teacher education program.

PHYSICALLY OR OTHERWISE HEALTH IMPAIRED

SPI 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.

SPI 240 Preclinical Experiences—POII. 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 POII delivery models.

SPI 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.

SPI 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: SGN 251, SPI 240, and BIO 105.

SPI 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 POII teacher. Medical terminology and procedures are also introduced. Laboratory assignments are included in this course.
Prereq: Admission to the teacher education program, SPI 310.

SVI 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.

SVI 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, SPI 310 and SPI 360 or instructor permission.

SVI 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, adaptations and modification of instructional methods and materials, remediation, communication, problem-solving, decision-making, personal adjustment, prevocational education, and leisure activities. A directed classroom laboratory is required.
Prereq: SPI 310, SPI 360, and admission to the teacher education program.

SVI 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

SVI 365 Braille. 3 hrs
Developing proficiency in reading and writing error-free braille and the reading of music braille.
Prereq: SGN 251.

SVI 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: SGN 251.

SVI 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.

SVI 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: SGN 251.

SVI 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.

SVI 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, Cramer abacus and other teaching materials and devices. 
Prereq: SGN 251; admission to the teacher education program.

SVI 465 Braille II: Nemeth Code. 3 hrs
Transcription skills with Nemeth Code.
Prereq: SVI 365; admission to the teacher education program.

SVI 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: SGN 251; admission to the teacher education program.

SVI 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, Versabrineller, Stereo Toner, and Computer Braille Programs). Proficiency of five words per minute on the Optacon is expected.
Prereq: Admission to the teacher education program.

SVI 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

James D. Riley
Department Head
234 Boone Hall
487-3260


Associate Professors: Anne K. Bednar, Barbara Diamond, Trevor Gardner, Sarah Huyvaert, Martha Kinney, Edward Lederman, Rebecca Martusewicz, Maureen McCormack, Margaret Moore, Karen Paciorek, Patricia Pokay, Valerie Polakow, Robert S. Robinson, Georgia Sparks-Langer, Alane Starko

Assistant Professors: Kathleen Jeakle Beauvais, Jan Collins-Eaglin, Jane Gordon, Sylvia Jones, Christina Jose-Kampfer, Olga G. Nelson

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, comprise the programs for preparing elementary, secondary, and K-12 teachers.

Curricula

The department provides coordination of and a portion of the coursework 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

The general program of studies and other information for prospective elementary teachers is found on pp. 276-277. 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. A list of approved majors and minors is on page 230.

However, the Teacher Education department administers these majors for prospective elementary teachers: Arts Group; Elementary Science Group; Social Science Group Major for Elementary Education; Interdisciplinary Major in Children’s Literature and Drama/Theatre for the Young; and Group Major in Literature, Language, Communication, and Theatre Arts.

The Teacher Education department administers these minors for prospective elementary teachers: Arts Group; Early Childhood Education; Elementary Science Group; French Language; German Language; Social Science Group (Elementary); and Spanish Language.

Prospective elementary teachers with early childhood endorsement

The program of studies and other information for prospective elementary teachers with early childhood endorsement is found on p. 276. 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. A list of approved majors and minors is on page 230.

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 234 Boone 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 school/junior high and secondary school teaching, K-12 education, 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.

TEACHING PROGRAMS

EARLY CHILDHOOD

ELEMENTARY WITH EARLY CHILDHOOD MINOR

ELEMENTARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for certification for the Michigan Department of Education Elementary Provisional Certificate, which 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 subject areas of concentration in grades 6-8. In addition, the student is qualified for certification for endorsement in early childhood education, certification code "ZA." Depending on the major selected (or two other minors selected), the individual will be eligible for an additional endorsement(s). The certification tests for this field are #81, "Early Childhood," #83, "Elementary," and those needed for subject area endorsements.

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. MTH 108-109 Mathematics for Elementary Teachers 1-II (6)
I-B-5. Basic Studies requirement. See inside back cover
II-B-1. PHY 100 Science for Elementary Teachers (3)
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. All of:
CHM 101 Science for Elementary Teachers (3)
GES 202 Science for Elementary Teachers (3)
ESC 303 Science for the Elementary Teacher (3)
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
III-B-3. Both:
GEO 110 World Regions (3)
SOC 105 Introductory Sociology (3)
III-B-4. One of:
SOC 202 Social Problems (3)
*SOC 205 Minority Women in the United States (3)
*SOC 214 Racial and Cultural Minorities (3)
*SOC 344 Sociology of Sex Roles (3)
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. MUS 104 Elements of Music (2)
Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ............................................. 57

Specialty Studies

One of:
A major from the approved list (see p. 230) (30^)
Two minors other than early childhood education from the approved list (see p. 230) (40^)
CUR 214 The Developing Child (3)^
CUR 215 Child Development Lab: Preschool Child (1)^
**CUR 373 Child Development Lab: Methods and Resources (1)^
**CUR 401 Issues and Practices in Early Childhood Education (2)^

Three hours from:
CUR 314 The Developing Infant (3)
CUR 315 Child Development Lab: Infancy (1)
EDP 318 Uses of Play in the Helping Professions (3)
PED 281 Motor Development (3)

Subtotal, Specialty Studies: ............................................. 34

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
EDP 200 Human Development and Learning—Early Childhood (5)
SGN 251 Education of Exceptional Children (3)^
PED 257 Physical Education for the Classroom Teacher (2)
EDT 300 Introduction to Computer Applications in Education (1)
MTH 381 The Teaching of Mathematics K-6 (3)
The following courses require formal admission to the teacher education program:
SFD 328 Social Aspects of Teaching (3)
CUR 302 Methods of Integrating Curriculum and Resources in Early Childhood (3)^
CUR 304 Curriculum and Methods: Elementary (3)
RIDG 314 Teaching Reading in the Elementary School (6)
FA 300 Art Integration for the Elementary Teacher (4)
EDM 345 Media for the Classroom Teacher (1)
EDP 341 Assessment of the Young Child (3)^
EDU 496 Student Teaching (6)
EDU 497 Student Teaching (6)

Credit hours in Professional Studies: ............................................. 49

Total credit hours required: ............................................. 152

^Course required for and applicable to major.
Indicated courses constitute the early childhood minor.
**Admission to the teacher education program required.
Could be less, depending on the minor and the possible application of basic studies courses to the minor.
Could be less, depending on the major and the possible application of Basic Studies courses/hours to the major.

ELEMENTARY EDUCATION

ELEMENTARY TEACHER CERTIFICATION

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for certification for the Michigan Department of Education Elementary Provisional Certificate, which 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 subject areas of concentration in grades 6-8. Depending on the major and minor selected (or three minors selected), the individual will be eligible for additional endorsements. The certification tests for this field are #81, "Early Childhood," #83, "Elementary," and those needed for subject area endorsements. The certification tests for this field are #83, "Elementary," and those needed for subject area endorsements.
**Basic Studies**

I-B-1. ENG 121 English Composition (3)

I-B-2. Basic Studies requirement. See inside back cover

I-B-3. Basic Studies requirement. See inside back cover

I-B-4. Both:
   - MTH 108 Mathematics for Elementary Teachers I (3)
   - MTH 109 Mathematics for Elementary Teachers II (3)

I-B-5. See inside back cover

II-B-1. All of:
   - PHY 100 Science for Elementary Teachers (3)
   - GES 202 Science for Elementary Teachers (3)
   - ESC 303 Science for the Elementary Teacher (3)

II-B-2. Basic Studies requirement. See inside back cover

II-B-3. CHM 101 Science for Elementary Teachers (3)

III-B-1. Basic Studies requirement. See inside back cover

III-B-2. Basic Studies requirement. See inside back cover

III-B-3. GEO 110 World Regions (3)

III-B-4. Complete a course from one of the following options:
   a. Basic Studies requirement. See inside back cover
   b. GEO 111 (follows 110) Regions and Resources (3)
   c. Basic Studies requirement. See inside back cover

IV-B-1. Basic Studies requirement. See inside back cover

IV-B-2. Basic Studies requirement. See inside back cover

IV-B-3. Basic Studies requirement. See inside back cover

IV-B-4. MUS 104 Elements of Music (2)

**Physical education, military science, or equivalent (2)**

**Additional requirement:** LIT 207 Introduction to Children's Literature (3)

**Credit hours in Basic Studies:** .......................................................... 60

**Specialty Studies**

**One of:**
   - A major from the approved list (see p. 230) (30)
   - A minor from the approved list (see p. 230) (20)
   - Three minors from the approved list (see p. 230) (60)

**Subtotal, Specialty Studies:** .............................................................. 50

**Professional Studies**

100 clock hours of approved pre-student teaching field experiences (0)

IE 253 Technology Education for Children (3)
PED 257 Physical Education for the Classroom Teacher (2)
EDT 300 Introduction to Computer Applications in Education (1)
HED 320 Health Education in the Elementary Grades (2)
MUS 320 Elementary Music Education (2)
EDP 322 Human Development and Learning (4)

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

- FA 300 Art Integration for the Elementary Teacher (4)
- SGN 300 Exceptional Children in the Regular Classroom (1)
- CUR 304 Curriculum and Methods: Elementary (3)
- RDG 314 Teaching Reading in the Elementary School (6)
- SFD 328 Social Aspects of Teaching (3)
- EDP 340 Introduction to Assessment and Evaluation (3)
- EDM 345 Media for the Classroom Teacher (1)
- MTH 381 The Teaching of Mathematics K-6 (3)
- EDU 492 Student Teaching (12)

**Credit hours in Professional Studies:** .................................................. 50

**Total credit hours required:** .............................................................. 160

*Could be less, depending on the major and minor (or three minors) selected and the possible application of Basic Studies courses/hours to the major and minor (or three minors)

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**TEACHING MAJORS ADMINISTERED BY THE DEPARTMENT**

Majors and minors for prospective elementary teachers may be selected from, but are limited to, those on the approved list on p. 230. The majors and minors given below are administered by the Department of Teacher Education.

**ARTS GROUP MAJOR**

**ELEMENTARY TEACHER CERTIFICATION**

Successful completion of this major, 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 (3)
- CTA 222 Drama and Play in Human Experience (3)
- IE 354 Experiences in Technology for Children (2)
- 17 credits from fine arts, industrial education, music, drama/theatre for the young, or theatre arts courses

**25 hours**, not counting hours applicable to Basic Studies or professional studies.

The following courses, required in the general education or professional studies for elementary education, are considered part of this major and must be included if this major is selected:

- MUS 104 Elements of Music (2)
- IE 253 Technology Education for Children (3)
- FA 300 Art Integration for the Elementary Teacher (4)
- MUS 320 Elementary Music Education (2)

**CHILDREN'S LITERATURE AND DRAMA/THEATRE FOR THE YOUNG, INTERDISCIPLINARY MAJOR IN ELEMENTARY TEACHER CERTIFICATION**

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."

**Two of:**

- *LIT 100 The Reading of Literature (3)
- *LIT 101 The Reading of Literature: Fiction (3)
- *LIT 102 The Reading of Literature: Poetry (3)
- *LIT 103 The Reading of Literature: Drama (3)
- *LIT 204 Native American Literature (3)
- LIT 210 Introduction to Shakespeare (3)
- LIT 251 The Bible as Literature (3)
- *LIT 260 African American Literature (3)
- *LIT 207 Introduction to Children's Literature (3)
- ENG 450 Children's Literature: Criticism and Response (3)

**One of:**

- LIT 351 World Mythology (3)
- LIT 352 Folk Literature: Ballads and Folk Tales (3)

**One of:**

- *CTA 121 Fundamentals of Speech (2)
- *CTA 124 Fundamentals of Speech (3)
- CTA 222 Drama and Play in Human Experience (3)
- CTA 323 Improvising and Role-Play (3)
- CTA 324 Oral Interpretation of Literature for the Young (3)

If CTA 121 is in the program, choose 10 credits from this list; if CTA 124 is in the program, choose 9 credits from this list:

- CTA 322 Theatre for the Young (3)
- CTA 327 Plays for the Young (3)
- CTA 497/498/499 Independent Study (1/2/3)
- CTA 210 Interpretative Reading (3)
ELEMENTARY SCIENCE GROUP MAJOR

ELEMENTARY TEACHER CERTIFICATION

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code “DX.” The certification test covering this field is #16, “Science.” If PSY 101 is in the program, choose 21 credits from this list; if PSY 102 is in the program, choose 20 credits from this list:

AST 203 Exploration of the Universe (3)
BIO 105 Biology and the Human Species (4)
BIO 205 Field Biology (4)
BIO 207 Elements of Ecology (2)
BIO 244 Principles of Conservation (4)
BIO 232 Nature Interpretation (3)
BIO 413 Animal and Plant Preservation Techniques (1)
BIO 415 Basic Histological Techniques (1)
BOT 209 Ornamental Plants (2)
BOT 215 Economic Botany (3)
BOT 354 Trees and Shrubs (3)
CHM 105 Survey of Chemistry (5) or CHM 119 Fundamentals of Chemistry (4)
CHM 115, 116 Chemistry and Society (4)
CHM 120 Fundamentals of Organic and Biochemistry (4)
CHM 121-122 General Chemistry I with lab (4)
GES 114 National Parks and Monuments (2)
GES 200 The Oceans (3)
GES 227 Topographic Maps (2)
GES 303 Field Geography (3)
GES 309 Plate Tectonics (3)
GES 324 Weather (3)
GES 401 Cartography (3)
GLG 161 Historical Geology (4)
GLG 229 Rocks of Michigan (2)
GLG 325 Geomorphology (3)
PHY 110 Physical Science (4)
PHY 210 Musical Acoustics (4)
PHY 211 Elementary Physical Science (3)
PHY 221 Mechanics, Sound, and Heat (4)
PHY 222 Electricity and Light (4)

21 hours, not including course work satisfied through Basic Studies or professional studies.

The following courses, required in the general education for elementary education, are considered part of this major and must be included if this major is selected:

PHY 100 Science for Elementary Teachers (3)
CHM 101 Science for Elementary Teachers (3)
GES 202 Science for Elementary Teachers (3)
ESC 303 Science for the Elementary Teacher (3)

24 hours, not including the minor and not including requirements that may be satisfied through Basic Studies (*).

One of:

- PSY 101 General Psychology (3)
- PSY 102 General Psychology (4)

LITERATURE, LANGUAGE, COMMUNICATION, AND THEATRE ARTS GROUP MAJOR

ELEMENTARY TEACHER CERTIFICATION

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.”

*ENG 121 English Composition (3)
*LIT 210 Introduction to Shakespeare (3)
*LIT 207 Introduction to Children’s Literature (3)

Two of:

*LIT 100 The Reading of Literature (3)
*LIT 101 The Reading of Literature: Fiction (3)
*LIT 102 The Reading of Literature: Poetry (3)
*LIT 204 Native American Literature (3)
LIT 251 The Bible as Literature (3)
*LIT 260 African American Literature (3)

One of:

*ENG 225 Intermediate English Composition (3)
ENG 328 Writing: Style and Language (3)
ENG 335 Imaginative Writing (3)

Two of:

LIN 201 An Introduction to Linguistics (3)
LIN 401 Introduction to Linguistic Science (3)
LIN 402 Modern English Grammar (3)
LIN 421 The History of the English Language (3)

One of:

*CTA 121 Fundamentals of Speech (2)
*CTA 124 Fundamentals of Speech (3)
CTA 210 Interpretative Reading (3)
CTA 222 Drama and Play in Human Experience (3)

If CTA 121 is in the program, take 4 hours in communication and theatre arts; if CTA 124 is in the program, take 3 hours in communication and theatre arts.

18 hours, not including the minor and not including requirements that may be satisfied through Basic Studies (*).

SOCIAL SCIENCE GROUP MAJOR FOR ELEMENTARY EDUCATION

ELEMENTARY TEACHER CERTIFICATION

Note: Recommendation for endorsement in social science (certification code “CX”) requires a group major of 36 hours from economics, geography, history, political science, psychology, sociology, anthropology, cultural studies, government, and behavioral studies. The certification test covering social sciences is #06, “Social Sciences.”

Choose at least 12 credits, but no more than 18 credits from one of the following five areas: economics, geography, history, political science, sociology. Geography and geology applicable in the science and technology courses do not count on this major.

Choose three credits in each of the remaining four social science areas.

12 hours, not including the minor and not including requirements that may be satisfied through Basic Studies.
TEACHING MINORS ADMINISTERED BY THE DEPARTMENT

ARTS GROUP MINOR
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION
(NOT AVAILABLE WITH ART MAJOR OR WITH MUSIC MAJOR)

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 (3)
**MUS 104 Elements of Music (2)
*IE 253 Technology Education for Children (3)
*FA 300 Art Integration for the Elementary Teacher (4)
*MUS 320 Elementary Music Education (2)
IE 354 Experiences in Technology for Children (2)

8 hours from:
CTA 222 Drama and Play in Human Experience (3)
CTA 322 Theatre for the Young (3)
CTA 323 Improvising and Role-Play (3)
CTA 324 Oral Interpretation of Literature for the Young (3)
CTA 497/498/499 Independent Study (1/2/3)
CTA 210 Interpretative Reading (3)
CTA 106 Introduction to the Performing Arts (3) Not open to those with credit in MUS 106.
CTA 150 Introduction to Theatre (3)
*CTA 151 African American Theatre: An Introduction (3)
CTA 153 Technical Theatre: Costume and Make-up (2)
CTA 251 African American Theatre: Creative Problems (3)
CTA 168/268/368/468 Interpretation (1 each)
AMU 101-300 Applied Music Lessons (1-4)
FA 100 Art Appreciation (3)
FA 107 Art History Survey I (3)
FA 108 Art History Survey II (3)
FA 421 History of Oriental Art (3)
FA 122 Two-Dimensional Design (3)
FA 123 Drawing I (3)
FA 124 Drawing II (3)
*FA 222 African and African American Art (3)
FA 231 Three-Dimensional Design (3)
FA 302 Graphic Design (3)
FA 436 Women in Art (3)
IDT 121 Graphic Communication (3)
IE 105 History of Industrial Technology (3)
IE 118 Energy Technology (3)
IE 152 Arts and Crafts (3)
MUS 106 Introduction to the Performing Arts (3)
MUS 107 Music Appreciation (2)
MUS 151 Class Piano (2)
MUS 152 Class Piano (2)
MUS 232 Voice Class (1)
MUS 131 University Choir (1)
MUS 134 University Women's Chorus (1)
MUS 135 University Men's Chorus (1)
MUS 249 Band (1)
MUS 248 Orchestra (1)
MUS 274 Functional Guitar (2)
MUS 224 Recreational Music (2)
Other courses in fine arts, industrial education, music, or theatre arts

13 hours for elementary program, not counting hours in Basic Studies and professional studies. 21 hours for special education program, not counting hours that could be taken in Basic Studies.

**Satisfies multicultural/international student requirement.
**Included in Basic Studies for elementary program.
*Included in professional studies for elementary program.

EARLY CHILDHOOD EDUCATION MINOR
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in early childhood, certification code "Z.A." The certification test covering this field is #82, "Early Childhood."

CUR 214 The Developing Child (3)
CUR 215 Child Development Lab: Preschool Child (1)
**CUR 373 Child Development Lab: Methods and Resources (1)
**CUR 401 Issues and Practices in Early Childhood Education (2)
*SGN 251 Education of Exceptional Children (3)
**CUR 302 Methods of Integrating Curriculum and Resources in Early Childhood (3)
**EDP 341 Assessment of the Young Child (3)
**EDU 496 Student Teaching (6)

Three hours from:
CUR 314 The Developing Infant (3)
CUR 315 Child Development Lab: Infancy (1)
EDP 318 Uses of Play in the Helping Professions (3)
PED 281 Motor Development (3)

24 hours for those in elementary programs; 21 hours for those in special education programs.

** Requires formal admission to the teacher education program.
* Included in the special education programs.

ELEMENTARY SCIENCE GROUP MINOR
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code "DX." The certification test covering this field is #16, "Science."

If PSY 101 is in the program, choose 9 credits from this list; if PSY 102 is in the program, choose 8 credits from this list:

AST 203 Exploration of the Universe (3)
*BIO 105 Biology and the Human Species (4)
*BIO 205 Field Biology (4)
*BIO 207 Elements of Ecology (2)
*BIO 224 Principles of Conservation (4)
*BIO 232 Nature Interpretation (2)
*BIO 413 Animal and Plant Preservation Techniques (1)
*BIO 415 Basic Histological Techniques (1)
*BOT 209 Ornamental Plants (2)
*BOT 215 Economic Botany (3)
*BOT 354 Trees and Shrubs (3)
*CHM 105 Survey of Chemistry (5) or CHM 119 Fundamentals of Chemistry (4)
*CHM 115-116 Chemistry and Society with lab (4)
*CHM 120 Fundamentals of Organic and Biochemistry (4)
*CHM 121-122 General Chemistry I with lab (4)
*GES 114 National Parks and Monuments (2)
*GES 200 The Oceans (3)
*GES 227 Topographic Maps (2)
*GES 303 Field Geography (3)
*GES 309 Plate Tectonics (3)
12 hours, for endorsement in Elementary and Special Education—Elementary, the certifica-
tion code "CX." The certification test covering this field is #06, "Social Sciences." 
Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in Social Sciences, certification code "CX." The certification test covering this field is #06, "Social Sciences.

**FRENCH LANGUAGE MINOR**
ELEMENTARY AND SPECIAL EDUCATION—ELEMENTARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in French, certification code "FA." The certification test covering this field is #23, "French."

FRN 343 French Composition (3)
FRN 344 French Conversation (3)
14 credits from any level French courses
20 hours

**GERMAN LANGUAGE MINOR**
ELEMENTARY AND SPECIAL EDUCATION—ELEMENTARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in German, certification code "FB." The certification test covering this field is #24, "German."

GER 343 German Composition (3)
GER 344 German Conversation (3)
14 credits from any level German courses
20 hours

**SOCIAL SCIENCE GROUP MINOR (ELEMENTARY)**
ELEMENTARY AND SPECIAL EDUCATION—ELEMENTARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in social science, certification code "CX." The certification test covering this field is #06, "Social Sciences."

SOC 105 Introductory Sociology (3)
**9 credits in social science courses
One of:
**His 123 The United States to 1877 (3)
**His 124 The United States, 1877 to the Present (3)
**GEO 110 World Regions (3)
One of:
ECO 200 The American Economy (3)
ECO 201 Principles of Economics I (3)
**PLS 112 American Government (3)
12 hours, not including hours taken through Basic Studies.

**SPANISH LANGUAGE MINOR**
ELEMENTARY AND SPECIAL EDUCATION—ELEMENTARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in Spanish, certification code "FF." The certification test covering this field is #28, "Spanish."

SPN 343 Spanish Grammar and Composition (3)
SPN 344 Spanish Conversation and Composition (3)
14 credits from any level Spanish courses
20 hours

**CURRICULUM COURSES**

CUR 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.

CUR 214 The Developing Child. 3 hrs
Developmental patterns of children in various settings. Physical, mental, social, and emotional components of growth through the first five stages of the family life cycle, with emphasis on the child from two to five years. Impact of the family resources, attitudes, and values on young children. Concurrent registration in CUR 215 required.
Prereq: Sophomore standing.

CUR 215 Child Development Lab: Preschool Child. 1 hr
Observation of child growth and development; participation with children 2 1/2 to 5 years of age. Concurrent registration in CUR 214 required.

CUR 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.

CUR 302 Methods of Integrating Curriculum and Resources in Early Childhood. 3 hrs
To help students design and implement developmentally appropriate curricula and programs for children pre-kindergarten 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: EDP 200, MTH 108, CUR 214, and CUR 215. Taken concurrently with CUR 373. Admission to the teacher education program.

CUR 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: Admission to the teacher education program prior to registration.
CUR 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: Admission to the teacher education program prior to registration.

CUR 314 The Developing Infant. 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. Concurrent registration in CUR 315 required. Prereq: CUR 214 or department permission.

CUR 315 Child Development Lab: Infancy. 1 hr
Observation of infant growth and development; participation with children under 2 1/2 years. Taken concurrently with CUR 314.

CUR 372 Methods and Resources in Child Development Centers. 4 hrs
Curriculum and program planning for guiding groups of young children; planning for the secondary pupil or the paraprofessional to work with preschool children. Concurrent registration in CUR 373 required. Prereq: CUR 214 and CUR 314.

CUR 373 Child Development Lab: Methods and Resources. 1 hr
Planning and carrying out learning activities with young children. To be taken concurrently with CUR 372.

CUR 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.

CUR 401 Issues and Practices in Early Childhood Education. 2 hrs
This culminating course in the early childhood minor deals with the current issues of concern to the beginning teacher. A supplement to student teaching at the pre-kindergarten level, the course furthers the development of knowledge of pre-primary education and the operation of child care programs. (Taken concurrently with EDU 496).

CUR 407 Administration and Supervision in Child Development Centers. 3 hrs
The administrator's role in child development/child care programs. Applications of philosophy and management skills to preschool programs. Supervision, safety, licensing, and other regulations. Prereq: CUR 214 and department permission.

CUR 413 Experiences with Children. 5 hrs
Supervised participation with young children in home and group settings. Selection, presentation, and evaluation of learning experiences for young children. Emphasis on interpreting these experiences to secondary pupils. Prereq: CUR 302 and CUR 373.

CUR 422 Seminar in Child Development. 2 hrs
Critical analysis of selected readings and research in child development, with interpretations for implementation in child development centers. Prereq: CUR 214.

CUR 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.

EDM 101 Use of Books and Libraries. 2 hrs
Practical instruction in the use of the library's tools and materials. Given on demand.

EDM 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.

EDM 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.

EDM 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.

EDM 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.

EDM 402 General Reference. 3 hrs
The selection, critical examination, evaluation, and use of general reference materials, and the techniques of reference service.

EDM 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.

EDM 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 PSYCHOLOGY COURSES

EDP 106 Introduction to University Studies. 3 hrs
Orientation to the role and function of the university; career orientation; improvement of study skills; university services and diagnostic testing and counseling. Credit awarded for normal tuition charges apply. Prereq: Special permission of the Academic Advising Center.

EDP 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.

EDP 200 Human Development and Learning—Early Childhood. 5 hrs
Individual human development, birth through maturity, with emphasis on the early years. Observational skills in recording children's behavior, learning theories as they relate to differing curriculum models and experiences with children on a one-to-one basis or with small groups in a pre-planned activity. For early childhood education majors. Prereq: PSY 101/102.

EDP 206 Mental Hygiene. 2 hrs
A study of the facts, conditions, techniques, and policies that further mental health and prevent mental illness. Skills and knowledge pertaining to effective interpersonal relationships and current concepts and approaches to mental health. Not open to freshmen. Prereq: PSY 101/102.

EDP 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.

EDP 318 Uses of Play In the Helping Professions. 3 hrs
An overview of approaches to play and its uses. Applications will be made to the fields of early childhood and elementary education, special education, physical education and recreation, occupational therapy, nursing, and child care. Students will conduct observations and interviews on play and experiment with a variety of play materials and media with children.

EDP 322 Human Development and Learning. 4 hrs
The psychological study of childhood from birth through adolescence with a focus on intellectual and psycho-social behavior and the role of parents and teachers in fostering learning and development. Prereq: PSY 101/102.

EDP 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 101/102.

EDP 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: Admission to the teacher education program.

EDP 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: EDP 200 or EDP 322; CUR 214; and admission to the teacher education program.

EDP 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.

EDP 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.

EDP 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.

EDP 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

EDT 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.

EDT 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.

EDT 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. Required for all students pursing a teacher education curriculum.

EDT 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.

EDT 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.
READING COURSES

RDG 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.

RDG 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.

RDG 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 both the normal and retarded reader. Providing reading instruction within the context of the various areas. Required for all students who seek certification to teach in secondary schools.
Prereq: Admission to the teacher education program.

RDG 314 Teaching Reading in the Elementary School. 6 hrs
The developmental aspects of reading and language arts programs from pre-school 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: Admission to the teacher education program.

RDG 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.

RDG 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

SFD 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.

SFD 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.

SFD 328 Social Aspects of Teaching. 3 hrs
Systematic study of the school as a major institution in American society and of the bearing of educational social science and philosophy on social interaction in the classroom.
Prereq: Admission to the teacher education program.

SFD 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.

SFD 403 Endangered Children. 3 hrs
Multi-disciplinary analysis of the conditions of children and youth; a consideration of the rights of children and examination of such phenomena as myths about adolescents, drop-outs, and runaways; infanticide, homicide, and suicide among the young; the abuse and exploitation of children; the political meaning of the economic deprivation of youth.

SFD 402 Sexism and Education. 3 hrs
How sexist attitudes and behaviors affect and are affected by school policies and practices; educational aims, staff relations, teaching styles, decision-making, treatment of pupils, instructional materials, anti-sexist programs.

SFD 403 Endangered Children. 3 hrs
Multi-disciplinary analysis of the conditions of children and youth; a consideration of the rights of children and examination of such phenomena as myths about adolescents; drop-outs and runaways; infanticide, homicide, and suicide among the young; the abuse and exploitation of children; the political meaning of the economic deprivation of youth.

SFD 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.

SFD 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.
COLLEGE OF HEALTH AND HUMAN SERVICES

Elizabeth King, Dean
Kathy Randles, Assistant to the Dean
212 King Hall
487-0077

DEPARTMENTS

Associated Health Professions
Human, Environmental, and Consumer Resources
Nursing Education
Social Work
COLLEGE OF HEALTH AND HUMAN SERVICES

The College of Health and Human Services is composed of applied fields and strives for an organizational environment in which linkages with other programs and colleges is desired and encouraged. It also takes a leadership role in providing a close working relationship between the University and the community.

Professional education is based in the academic disciplines and generates a graduate with flexibility and breadth who can adapt to a rapidly changing world. The several curricula and programs of the college require a mastery of knowledge and problem-solving processes that are basic to human growth, development, and healthy functioning. The college aims to prepare professionals who are equipped to provide health and human services to individuals and/or families in a variety of settings including businesses, homes, schools, hospitals, community, and social agencies. Characterized by a concern for the quality of human life at all stages of development, health and human services are directed toward realizing the potential of the total person throughout the life cycle.

Established in January 1975, the College of Health and Human Services is comprised of the departments of Associated Health Professions; Human, Environmental, and Consumer Resources; Nursing Education; and Social Work. It also offers minors in gerontology, clothing and textiles, nutrition, occupational foods, and social work.

The increased emphasis on health-related and other service professions during the past decade has placed added responsibility for expansion, additions, or revisions of programs to provide career opportunities and to meet student interest in these professions. The college brings together both recent and long-established programs that utilize traditionally strong, quality studies in the basic sciences, both natural and behavioral, and then applies and extends these studies through professional theory and laboratory courses and through field experiences and clinical affiliations.

The College of Health and Human Services and its programs are involved with a wide variety of accrediting agencies that govern the academic standards of most of the curricula and determine the requirements for entry into those professions, as indicated in the descriptions of the programs.

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
- Ann Arbor Hospital, Wayne
- Battle Creek Public Schools, Battle Creek
- Beaumont Hospital, Royal Oak
- Beyer Memorial Hospital, Ypsilanti
- Bixby Hospital, Adrian
- Borgess Hospital, Kalamazoo
- Robert B. Brigham Hospital, Boston, MA
- Brighton Hospital, Brighton
- Business/Education Alliance, Detroit
- Catherine McAuley Health Center, Ann Arbor
- Catherine McAuley Health Center Interior Design Office, Ann Arbor
- Chelsea Community Hospital, Chelsea
- Children’s Hospital, Detroit
- Cincinnati General Hospital, Cincinnati, OH
- Citizen’s for Better Care, Traverse City
- 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
W.A. Foote Hospital, Jackson
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
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
Klenzner Linda Korbesja, ASD, 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
Muskogon Public Schools, Muskegon
Normal Street House, Ypsilanti
North Carolina Memorial Hospital, Chapel Hill, NC
Oakwood Hospital, Dearborn
The Ohio State University Hospitals, Columbus, OH
Oakland 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
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 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
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
Washtenaw County Community Mental Health Program, Ann Arbor
Washtenaw County Health Department, Ann Arbor
Washtenaw County League for Planned Parenthood, Ann Arbor
This course focuses on the multiple career options within the health care delivery system. Issues related to career selection, education, costs, and manpower 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.

HHS 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.

HHS 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.

HHS 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. 
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Prereq: Department permission.

ASSOCIATED HEALTH PROFESSIONS

Stephen A. Sonstein
Department Head
328 King Hall
487-0460

The Associated Health Professions department offers programs that lead to the baccalaureate degree 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.

INTERDISCIPLINARY COURSES

AHP 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.

AHP 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. Educational requirements, career opportunities, and clinical experience requirements will be highlighted.

AHP 200 Medical Terminology. 1 hr
A detailed study of medical terminology, through which students will achieve a working medical vocabulary. Anatomical terms, terminology relating to diseases and disease processes will be presented. This course is designed for students entering a health related educational program, and is a prerequisite for admission to the Occupational Therapy program.

AHP 208 Ethical Dimensions in Health Care Delivery. 2 hrs
This course presents information which students interested in the health professions may use to identify ethical situations and to resolve dilemmas they may face in their professional lives.

AHP 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.

AHP 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.

AHP 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.

AHP 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.

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ACADEMIC PROGRAMS

CLINICAL LABORATORY SCIENCES PROGRAM

Gary Hammerberg
Interim Program Director
326 King Hall

Associate Professor: Jeanne M. Clerc
Assistant Professor: Clifford Renk

Degree: Bachelor of Science

Programs of Study
Curriculum:
- Clinical laboratory sciences (Clinical certification track, professional track, cytotechnology/histotechnology track)

The clinical laboratory sciences program offers three tracks, the clinical certification track, the professional track, and cytotechnology/histotechnology track, each leading to the Bachelor of Science degree. Successful completion of a two-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 advisor each semester in which they are enrolled in classes.

Advising Coordinators:
- Students are assigned to a faculty advisor 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: This option consists of seven semesters of coursework in basic studies, basic sciences, and clinical sciences and includes 23 weeks of rotation through an accredited clinical laboratory. These clinical laboratories include the University of Michigan, Ann Arbor; Veteran’s Administration Hospital, Ann Arbor; and St. Joseph Mercy Hospital, Ann Arbor. This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences.

2. Professional track: This option consists of eight semesters of coursework in the basic studies, 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 a registered medical technologist.

The major in clinical laboratory sciences follows an interdisciplinary format comprised of courses in clinical laboratory sciences, biology, chemistry, and mathematics.

All students must complete the courses in each of the four areas of basic studies. At least 30 semester 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 2.5 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 fall semester of the senior year.

Application packets can be obtained from the Department of Associated Health Professions 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 2.5 on a 4.0 scale with no grade below “C-” in any science, mathematics, or preprofessional course. The prerequisite courses may be taken at this university, any four-year college/university, or at a community college.

2. A minimum science GPA of 2.5.

3. Completion of at least 60 semester hours of university credit, including 45 semester 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 B.S. 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 coursework for the B.S. degree in clinical laboratory sciences and application to an approved hospital-based school of medical technology. The faculty advisors 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 first week 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 coursework. 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.

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.

**Area** | **Sem hours**
--- | ---
Symbolics and communication (Five courses) | 14-17
Science and technology | 9
Biology courses | 12-16
- BIO 105 Biology and the Human Species (or waiver) | 4
- MIC 329 General Microbiology | 5
- BIO 301 Genetics | 3
- BOT 446 Medical Mycology (professional track only) | 4
Chemistry courses | 16-20
- CHM 119 Fundamentals of Chemistry (if no high school chemistry) | 4
- CHM 121-124 General Chemistry I-II with labs | 8
- CHM 270-271 Organic Chemistry with lab | 5
- CHM 351 Introductory Biochemistry | 3
Mathematics and computer science courses | 9
- MTH 105 College Algebra (or waiver) | 3

**MTH 270 Elementary Statistics or PSY 205 Quantitative Methods in Psychology or SOC 250 Social Statistics I** | 3
**HHS 226 Computers for Health and Human Services** | 3

**Clinical laboratory sciences courses**

- CLS 101 Introduction to Clinical Laboratory Sciences | 1
- AHP 200 Medical Terminology | 1
- CLS 200 Clinical Laboratory Techniques | 2
- CLS 307 Introduction to Hematology | 3
- CLS 310 Urinalysis and Body Fluids | 2
- CLS 335 Clinical Immunology | 4
- CLS 401 Laboratory Management/Education/Quality Assurance | 4
- CLS 402 Applications of Clinical Chemistry to Pathophysiology | 3
- CLS 407 Advanced Hematology | 3
- CLS 432 Clinical Microbiology | 4
- CLS 434 Advanced Immunohematology | 3
- *CLS 450 Hematology/Coagulation Practicum | 5
- *CLS 452 Clinical Immunology/Immunohematology Practicum | 5
- *CLS 454 Clinical Chemistry Practicum | 5
- *CLS 455 Clinical Chemistry Laboratory | 2
- *CLS 456 Clinical Microbiology Practicum | 5
- *CLS 457 Clinical Methods Practicum | 1
- *CLS 459 Clinical Mycology Practicum | 1
- Electives (professional track only) | 3
*Required for clinical track only.

**Social science:** (four courses) | 8-12
**Arts and humanities:** (four courses) | 8-12
**Physical education and health** | 2
**Physical education activity courses** | 2
(Any two courses in military science may be applied.)

**Total: minimum hours required for graduation** | 124

**CYTOLOGY/HISTOTECHNOLOGY TRACK**

**Specialization in cytotechnology**

Program Directors: 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 anatomie 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.
The course also highlights the benefits of a clinical laboratory science graduate school. An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.

Prereq: Permission of instructor and CLS 201.

CLS 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.

CLS 307 Introduction to Hematology. 3 hrs
The study of the formed elements of the blood, their precursors, and some of their products. Lecture and laboratory. Covers the theory and principles of routine medical laboratory hematology techniques. Not open to those with credit in BIO 307.

Prereq: CLS 200 or permission of instructor.

CLS 310 Urinalysis and Body Fluids. 2 hrs
Lecture and laboratory covering urine and body fluid analysis. Specimen collection and handling, physical examination, chemical testing, and microscopic evaluation.

Prereq: CHM 270-271 or permission of instructor.

CLS 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: CLS 200, MIC 329; or permission of instructor.

CLS 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.

CLS 387 Cooperative Education. 3 hrs
Three or four months of full time employment at a clinical, research or industrial laboratory or related area chosen for providing a practical educational experience in clinical laboratory sciences. The program consists of two work experiences alternated with full-time attendance at the University. Offered on a graded or credit/no credit basis.

Prereq: MIC 329; CHM 270, 271; permission of program director.

CLS 401 Laboratory Management/Education/Quality Assurance. 4 hrs
Basic management skills for laboratory personnel and laboratory. Personnel functions, equipment and reagent purchase, and laboratory information systems including computer applications, laboratory statistics, and evaluation of methods are covered in this lecture course.

Prereq: MTH 270 or equivalent.
This lecture course covers the relationship of clinical chemistry to diagnosis, prognosis, and treatment of disease. Focus will be on testing procedures, instrument assurance, and controlling the functions in order to provide correct information to the medical staff.

**Prerequisites:** CHM 351 or permission of instructor.

**CLS 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.

**Prerequisite:** Acceptance into clinical track.

**CLS 406 Cytotechnology Clinical Internship.** 14 hrs

Continuation of CLS 405.

**Prerequisite:** CLS 405.

**CLS 407 Advanced Hematology.** 3 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 BIO 407.

**Prerequisite:** CLS 407.

**CLS 410 Cytogenetics, Clinical Internship I.** 14 hrs

CLS 410 and CLS 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 photographic and computer assisted chromosome analysis. Procedures will include chronic villus, fragile X, and sister chromatid exchanges.

**Prerequisite:** Program approval.

**CLS 411 Cytogenetics, Clinical Internship II.** 14 hrs

Continuation of CLS 410.

**Prerequisite:** Program approval.

**CLS 416 Basic Histochemistry and Histochemical Staining Methods.** 2 hrs

Didactic and practical experience in preparing histologic sections for light microscopy, including the study of more than 50 different histologic staining methods and their specific applications.

**Prerequisite:** Program approval.

**CLS 417 Basic Electron Microscopy.** 8 hrs

Didactic and practical 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.

**Prerequisite:** Program approval.

**CLS 418 Immunohisto-Cytchemistry.** 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 fluorescent microscope in clinical medicine and research.

**Prerequisite:** Program approval.

**CLS 419 Cytogenetics.** 4 hrs

An intensive course in human cytogenetics. Human chromosome methodology, chromosome identification, and chromosomal abnormalities and their application in clinical medicine.

**Prerequisite:** Program approval.

**CLS 432 Clinical Microbiology.** 4 hrs

Lecture and laboratory covers mechanisms of pathogenesis and the specific bacterial and viral etiological agents of human disease; and methods of detection, isolation, enumeration, and identification used in clinical laboratories. Not open to those with credit in MIC 432.

**Prerequisite:** MIC 329 or permission of the instructor.

**CLS 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 BIO 434.

**Prerequisite:** CLS 307 and CLS 335.

**CLS 450 Hematology/Coagulation Practicum.** 5 hrs

An intensive hands-on clinical experience in routine hematology, coagulation, and special techniques at an advanced level.

**Prerequisite:** Acceptance into clinical track.

**CLS 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.

**Prerequisite:** Acceptance into clinical track.

**CLS 455 Clinical Chemistry Laboratory.** 2 hrs

This laboratory course includes theory, instrument assurance, 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.

**Prerequisite:** Program approval.

**CLS 456 Clinical Microbiology Practicum.** 5 hrs

An intensive hands-on clinical experience at an advanced level of instruction in clinical microbiology.

**Prerequisite:** Acceptance into clinical track.

**CLS 457 Clinical Methods Practicum.** 1 hr

This one-week intensive course includes an orientation to hospitals, training schools, a one-day experience at the American Red Cross, and a combined urinalysis/phlebotomy experience at the hospital affiliate.

**Prerequisite:** Acceptance into clinical track.

**CLS 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.

**Prerequisite:** Acceptance into clinical track or permission of instructor.

**CLS 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.

**Prerequisite:** Permission of instructor.

**CLS 487 Cooperative Education.** 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 alternated with full-time attendance at the University. Offered on a graded or credit/no credit basis.

**Prerequisite:** CLS 387, permission of program director.

**CLS 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.

**Prerequisite:** Permission of the instructor.
ACADEMIC PROGRAM

HEALTH ADMINISTRATION PROGRAM

Richard L. Douglass
Program Director/Associate Professor
328 King Hall
487-0460

Assistant Professor: Roberto Torres

Degree: Bachelor of Science

Program of Study

Curriculum:

Health
Health administration

Advising is available through the faculty in the health administration program office.

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 one of only 29 undergraduate programs in the United States with full membership in the Association of University Programs in Health Administration (AUPHA) and the only full member among Michigan’s colleges and universities. In addition, the Program is closely affiliated with the American Academy of Medical Administrators (AAMA). 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
Beyer Hospital, Oakwood Health Services, Ypsilanti
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
Homc Hospice of Washienaw, 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–McPherson Health Care, Howell
Michigan Blue Shield and Michigan Blue Cross, Detroit
Michigan Insurance Bureau, Lansing
Mid–Staffordshire Health Authority, Staffordshire General Infirmary, Stafford, England
Monson Hospital, Traverse City
Milan Federal Correctional Institution, Milan
Oakland County Department of Public Health
Packard Community Clinic, Ann Arbor
Saline Community Hospital, Saline
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
Wayne County Medical Examiner’s Office, Detroit

HEALTH ADMINISTRATION CURRICULUM

The curriculum concentrates on the principles and processes utilized in the field of health administration and management. The program is designed to thoroughly 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 semester hours. Students interested in the minor should contact the program in writing and meet with the program’s minor curriculum adviser.

Area

Symbols and communication .................................................. 10-15
Five courses as required by the basic studies program: Must include MTH 118 Mathematical Analysis for Social Sciences I
Science and technology ............................................................ 7-10
Three courses as required by the basic studies program: Must include BIO 105 Biology and the Human Species
Social science ........................................................................ 8-12
Four courses as required by basic studies: must include ECO 201-202 Principles of Economics I-II
Arts and humanitics ............................................................... 8-12
Four courses as required by the basic studies program: No restrictions.
Cross-cultural or international studies .................................... 3
One course approved as described by the basic studies program: No restrictions.
Physical education and health .................................................. 2
As required for all undergraduate degree candidates.

Required courses in Health Administration (HAD)*

HAD 305 Introductory Seminar in the U.S. Health Care System .................................................. 3
HAD 310 Administration of Health Care Organizations .......... 3
HAD 311 Management of Health Services ............................. 3
HAD 420 Financial Management of Health Institutions .......... 3
HAD 425 Decision Making for Health Administrators .......... 3
HAD 479 Special Topics: Managed Care Systems ............... 3
HAD 480 Internship Seminar in Health Administration ....... 3
HAD 487/488/489 Internship .................................................. 3-9
Two required courses in planning and regulation

Required courses in Associated Health Professions (AHP)*

AHP 200 Medical Terminology ........................................ 1
AHP 208 Ethical Dimensions in Health Care Delivery .......... 2
AHP 305 Data Analysis for the Health Sciences (or
MKT 360 Principles of Marketing) ..................................... 3
AHP 401 Legal Issues in Health Care (or LAW 293
Legal Environment of Business, or PLS 301 The American
Legal System) ................................................................ 3

Required courses in business administration and liberal arts*

MTH 119 Mathematical Analysis for Social Sciences II .... 3
ECO 436 Health Economics ........................................... 3
ACC 240-241 Principles of Accounting I-II .................... 2
MGT 384 Human Resource Management ........................ 3
DS 265 Business Statistics I (or any of the following basic
statistics courses: PSY 205 Quantitative Methods in
Psychology, ECO 310 Economic Statistics, SOC 250
Social Statistics I) .................................................... 3
BE 201 Microcomputers for Business Applications (or any
other computer literacy course) ..................................... 3

Electives ........................................................................ 6-15

The following courses are suggested as possible electives:
HAD 479 Special Topics: Health Care for the Homeless
(Honors only)
ACC 342 Managerial Cost Accounting
ECO 322 American Labor Unions
LAW 403 Employment Law
NUR 380 Health and Illness Problems Throughout the Life
Span
POM 374 Introduction to Production/Operations
Management
PHI 221 Business Ethics
PLS 332 Intergovernmental Relations and Federalism
PSY 351 Industrial Psychology
PSY 360 Abnormal Psychology
SOC 307 Industrial Sociology
SOC 311 Social Gerontology
SOC 462 Complex Organizations
For permissible College of Business courses (maximum 30
credit hours), see a program adviser.

Total ........................................................................ 124

HEALTH SERVICES MANAGEMENT TRACK

This is a degree completion track leading to the BS in health
administration for persons holding an accredited associate’s degree
in a recognized health service or clinical discipline. Such disci-
plines include nursing, respiratory therapy, or other specialized
two-year programs of study.

For degree completion students in this curriculum, up to 22
semester hours may be awarded and credited towards the BS
obligation of 124 semester hours on the basis of supervised clinical
coursework 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.

The curriculum for such degree candidates includes:

1. Completion of all Basic Studies requirements for Eastern
Michigan University
2. Electives
3. Completion of the minor in management (for non-business
majors)
4. Completion of the following courses:
   AHP 200 Medical Terminology ........................................ 1
   AHP 208 Ethical Dimensions in Health Care Delivery .......... 2
   AHP 305 Data Analysis for the Health Sciences ............ 3
   AHP 401 Legal Issues in Health Care .................. 3
   HAD 305 Introductory Seminar in the U.S. Health Care
System ............................................................... 3
   HAD 310 Administration of Health Care Organizations .... 3
   HAD 311 Management of Health Services .................. 3
   HAD 415 Planning and Regulation of the Health
   Industry or HAD 420 Financial Management of Health
   Institutions ...................................................... 3
   One specialized course in either health planning or health
   regulation ......................................................... 3

HEALTH ADMINISTRATION MINOR CURRICULUM

Students must complete these course requirements for the
health administration minor.

Minor in health administration

1. Required Courses
   Group I .................................................................. 5-6
   HAD 300 Health Care Issues or HAD 305 Introductory
   Seminar in the U.S. Health Care System .............. 2-3
   HAD 310 Administration of Health Care Organizations .... 3
   HAD 311 Management of Health Services .............. 3
   HAD 415 Planning and Regulation of the Health
   Industry or HAD 420 Financial Management of Health
   Institutions ...................................................... 3
   AHP 401 Legal Issues in Health Care .................. 3
   AHP 200 Medical Terminology .......................... 1

   Group II .................................................................. 5-6
   Students must elect two of the following:
   AHP 401 Legal Issues in Health Care (3)
   AHP 479 Special Topics (3)
   AHP 208 Ethical Dimensions in Health Care Delivery (2)
   AHP 305 Data Analysis for the Health Sciences (3)
   NUR 380 Health and Illness Problems Throughout the Life
   Span (3)
   SWK 431 Substance Abuse (3)
   SWK 438 The Interdisciplinary Health Care Team (3)
   GRT 404 Gerontology Interdisciplinary Seminar (3)
   AAS 351 The Social Context of African American Health (3)

Total ........................................................................ 20-22

HEALTH ADMINISTRATION COURSES

HAD 177/178/179 Special Topical. 1/2/3 hrs
An exploration and study of topics not covered in other departmen-
tal offerings. Students may elect more than once provided different
topics are studied.
Prereq: Department permission.

HAD 277/278/279 Special Topics. 1/2/3 hrs
An exploration and study of topics not covered in other departmen-
tal offerings. Students may elect more than once provided different
topics are studied.
Prereq: Department permission.

HAD 287 Cooperative Education. 3 hrs
Employment for pay in a work setting chosen to provide practical
experience related to health administration. The cooperative educa-
tion sequence consists of two work experiences (HAD 287
and HAD 387) alternated with full-time attendance at the University.
Prereq: Sophomore standing and health administration major.

HAD 300 Health Care Issues. 2 hrs
This survey of the organization, traditions, profession, stratifica-
tion, 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.
HAD 301 Health Care Issues Seminar. 1 hr
A seminar designed to accompany HAD 300 during semesters when HAD 305 is not taught. This seminar adds discussion and content to HAD 300 to bring the students to a level of understanding comparable to HAD 305. For HAD majors only.

HAD 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).

HAD 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: HAD 305.

HAD 311 Management of Health Services. 3 hrs
A continuation of HAD 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: HAD 310.

HAD 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.

HAD 387 Cooperative 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 (HAD 287 and HAD 387) alternated with full-time attendance at the University.
Prereq: HAD 287.

HAD 420 Financial Management of Health Institutions. 3 hrs
The application of generic concepts and tools to the health field.
Prereq: HAD 310.

HAD 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: HAD 310.

HAD 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.

HAD 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.

HAD 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 HAD 480.

HAD 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.

ACADEMIC PROGRAM

OCCUPATIONAL THERAPY PROGRAM

Ruth A. Hansen
Program Director
328 King Hall
487-0461

Professor: Ruth A. Hansen
Associate Professor: Sherry Sayles-Folks
Assistant Professors: Ben Atchison, Norma Jean Bennett, Virginia Dickie
Instructors: Elizabeth Francis-Connolly, Judith Olson, LaDonna People

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
1. Students must first be accepted to the University by the Admissions 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.
2. Admission to the occupational therapy curriculum is competitive and based on the following:
a. A minimum grade point average of 2.7 on a 4.0 scale; at least a "B-" in three prerequisites and at least a "C" in the other one and in any major courses taken before beginning the program.
b. Completion of at least 40 semester hours of college credit (in addition to physical education activity courses) including the following prerequisites:
   PSY 101 General Psychology
   BIO 105 Biology and the Human Species
   Combined anatomy/physiology with lab or human physiology course
   CHM 105 Survey of Chemistry or CHM 119 Fundamentals of Chemistry or equivalents.
c. Acceptance is provisional. Before the student actually begins the professional curriculum, evidence of successful completion of at least 55 semester hours and the following additional prerequisite courses must be presented with at least a "B-" in three 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; and a course in medical terminology.
The prerequisite courses may be taken at this University, at another four-year college/university. Individuals with fewer than 75 semester hours of transferrable credits may take courses at a junior or community college.

d. Completed information on the application form with emphasis on work/volunteer experiences with individuals having special needs.

e. 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.)

f. 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 (OT 300, 301, 302, 303, 304, 308, 400, 403, 418, 420, 421, 488, 489, gerontology; ZOO 317, 326, 417; HAD 300; and IE 358).
   c. A letter grade of “E” in any required course will result in automatic dismissal.

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 degree 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. OT 488 and OT 489 Fieldwork are full-time placements of a minimum of three months each.

Certification requires successful completion of all academic requirements, fieldwork experiences, and the recommendation of the faculty. A registered occupational therapist (OTR) is one who has passed the certification examination administered by the American Occupational Therapy Certification Board.

Accreditation of the occupational therapy curriculum is authorized by the Accreditation Council of the American Occupational Therapy Association.

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.

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**OCCUPATIONAL THERAPY CURRICULUM**

The occupational therapy curriculum leads to a Bachelor of Science degree in occupational therapy or to a second baccalaureate degree for candidates who have earned a prior degree. Completion of courses identified by an asterisk (*) satisfies all major and minor requirements for a degree. No outside minor is needed.

**Area**

<table>
<thead>
<tr>
<th>Symbolics and communication</th>
<th>10-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements 1-5 (page 26)</td>
<td></td>
</tr>
</tbody>
</table>

**Science and technology**

<table>
<thead>
<tr>
<th>PSY 101 General Psychology</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 105 Biology and the Human Species</td>
<td>4</td>
</tr>
<tr>
<td>CHM 105 Survey of Chemistry or CHM 119</td>
<td>5-4</td>
</tr>
<tr>
<td>*ZOO 317 Human Gross Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>*ZOO 326 Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>*ZOO 417 Neuroanatomy</td>
<td>3</td>
</tr>
<tr>
<td>A second psychology course</td>
<td>3</td>
</tr>
<tr>
<td>AHP 200 Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>*OT 303 Conditions I</td>
<td>3</td>
</tr>
<tr>
<td>*OT 403 Conditions II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Social science**

<table>
<thead>
<tr>
<th>Requirements 1, 2, 3, and 4 (page 29)</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-cultural or international studies</td>
<td></td>
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</table>

**Arts and humanities**

<table>
<thead>
<tr>
<th>Requirements 1-5 (page 26)</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any two-course sequence offered in sociology/cultural anthropology</td>
<td>6</td>
</tr>
</tbody>
</table>

**Education**

<table>
<thead>
<tr>
<th>EDP 325 Life Span Human Growth and Development (in designated section for occupational therapy and nursing students)</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-cultural or international studies</td>
<td>4</td>
</tr>
</tbody>
</table>

**Practical arts**

| PED 200 Anatomy and Physiology | 5 |
| *HAD 300 Health Care Issues | 2 |
| *IE 358 Tools and Materials | 3 |
| *OT 300 Introduction to Occupational Therapy | 2 |
| *OT 301 Practicum in Occupational Therapy | 1 |
| *OT 302 Developmental Activities I | 2 |
| *OT 304 Developmental Activities II | 2 |
| *OT 388 Programming for Early Childhood | 6 |
| *OT 400 Seminar in Health Care Issues | 1 |
| *OT 418 Programming for Childhood and Adolescence | 5 |
| *OT 419 Programming for Adulthood and Aging | 5 |
| *OT 420 Fieldwork (part-time) | 2 |
| *OT 421 Fieldwork (part-time) | 2 |
| *OT 488 Fieldwork (full-time) | 6 |
| *OT 489 Fieldwork (full-time) | 6 |

**Physical education and health**

<table>
<thead>
<tr>
<th>Physical education activity courses</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Any two courses in military science may be applied.)</td>
<td></td>
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</tbody>
</table>

**Electives**

| 0-9 |
| Total | 130 |

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**OCCUPATIONAL THERAPY COURSES**

**OT 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 one provided different topics are studied.

Prereq: Department permission.

**OT 178 Special Topics: A View of Occupational Therapy.** 2 hrs
An overview of roles and functions of occupational therapists in a variety of settings. Career information is explored including help-
Prerequisite: OT 302, OT 303, OT 308.

The rationale and methods of evaluating the developmental status of the younger child and adolescent. Results of evaluation methods are used to determine program plans using specific approaches. May be taken concurrently with OT 403.

Prerequisite: OT 303, OT 308.

OT 419 Programming for Adulthood and Aging. 5 hrs
Methods of evaluating the developmental status and performance of the adult. Students plan intervention programs based on the results of the evaluation, using specific occupational therapy approaches.

Prerequisite: OT 418.

OT 420 Fieldwork (part-time). 2 hrs
An experience with children and/or adolescents in evaluating, planning, and implementing supervised occupational therapy intervention programs. May be taken concurrently with OT 403, OT 418.

Prerequisite: OT 303, OT 308.

OT 421 Fieldwork (part-time). 2 hrs
Experience with young, middle, and/or older adults in evaluating, planning, and implementing supervised occupational therapy intervention programs.

Prerequisite: OT 418. To be taken concurrently with or after OT 419.

OT 477/478/479/480 Special Topics. 1/2/3/4 hrs
Experimental courses or special topics in occupational therapy may be offered (to be announced).

Prerequisite: Department permission.

OT 488/489 Fieldwork (full-time). 6 hrs each
A full-time three-month experience in a selected health services agency, where the student will gain in-depth experience in evaluation and programming for occupational therapy intervention.

Prerequisite: Department permission; completion of all on-campus courses.

OT 490 Fieldwork (full-time elective). 6 hrs
A fieldwork experience with special populations or in special settings other than those completed in the required placements.

Prerequisite: OT 488 and OT 489; department permission.

OT 497/498/499 Independent Study. 1/2/3 hrs
Independent work following approved plan to develop knowledge in specialized areas.

Prerequisite: Department permission.
HUMAN, ENVIRONMENTAL, AND CONSUMER RESOURCES

E. A. Rhodes
Department Head
108 Roosevelt Building
487-1217

Associate Professors: Polly W. Buchanan, Deborah L. deLaski-Smith, Virginia A. North, Charlette Pratt, Gwendolyn M. Reichbach
Assistant Professors: Betty L. Barber, Louise Jones, Abraham Kadushin, Sarah E. Moore, N. Annette Peel, Deborah A. Silverman, Nancy Stanforth

The Human, Environmental, and Consumer Resources department provides students with concepts and competencies in preparation for professional roles. 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 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
- Fashion merchandising
- Hospitality management
- Interior design

Minors:
- Clothing and textiles
- Human Environments
- Human Nutrition
- Interior design
- Occupational foods
- Occupational foods for secondary, K-12, and special education-secondary

Advising is arranged by calling 487-2490 for an appointment. Specialized advising may be obtained according to the following list. Faculty members may be contacted directly.

Advising Coordinators:
- Dietetics: Charlette Pratt
- Fashion merchandising: Nancy Stanforth
- Hospitality management: Polly Buchanan
- Interior design: Virginia North
- Nutrition: Charlette Pratt
- Occupational foods: Polly Buchanan

Graduate study leads to the master's degree in Human, Environmental, and Consumer Resources; see the Graduate Catalog.

ACADEMIC MAJORS

CURRICULUM FOR DIETETICS

This specialized educational program, accredited by The American Dietetic Association, integrates academic study with practice experience in a coordinated undergraduate program in general 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. 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; or in research.

Admission into the dietetics program is not guaranteed by admission to the University. Students must submit 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 semester hours or equivalent.
2. Minimum grade point average of 2.5.
3. Satisfactory completion ("B-" grade or above) of the following courses at time of entrance into the program: HEC 202 Human Nutrition, DTC 301 Orientation to Dietetics, HEC 211 Experimental Foods, a grade of "C-" or better in BIO 105 Biology and the Human Species, CHM 121-122 General Chemistry I, CHM 123-124 General Chemistry II, ECO 201 Principles of Economics I, and coursework in organic chemistry.

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 offered by the Department of Human, Environmental, and Consumer Resources must successfully complete (70 percent or above) a theoretical and/or practical examination during the semester prior to the term in which the required course is scheduled.

Criteria for continuance in the program are as follows:
1. Students receive a "C-" grade or better in any required course in science and mathematics and in major courses after being admitted to the program.
2. A letter grade of "D" ("D+, D, 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 two (2) dietetics courses (DTC prefix) in one semester, or,
   - "D's" ("D+, D, D-") in two (2) courses in Sciences and Technology or,
   - "D's ("D+, D, D-") in one (1) dietetics course and one (1) required course or,
   - "E's" in one (1) dietetics course or one (1) required course.
3. Opportunity to continue in the Dietetics Program is contingent upon:
   - retaking at least one of the required courses in which a letter grade of "D" was earned and receiving a final grade of at least a "C-" in the retaking of the dietetics courses in which a letter grade of "D" was earned and receiving a final grade of at least a "C-".
4. In preparing to assume professional careers in dietetics, students are expected to assume responsibility for all 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.
In addition to meeting basic studies requirements, all students on this curriculum must complete all other courses specified. These particular curricular, major or minor requirements specify both courses and the number of hours to be completed. Students completing this curriculum have met the major and minor requirements for a degree. No outside minor is needed.

**Area** | **Sem hours**
--- | ---
**Symbolics and communication** | 14-15
ENG 121 English Composition | 3
CTA 121/124 Fundamentals of Speech | 2-3
A second course in ENG (page 26) or CTA 225 Listening Behavior, CTA 226 Non-Verbal Communication, or CTA 227 Interpersonal Communication | 3
SOC 250 Social Statistics I | 3
HHS 226 Computers for Health and Human Services | 3

**Science and technology** | 27
PSY 101 General Psychology | 3
BIO 105 Biology and the Human Species | 4
CHM 120 Fundamentals of Organic and Biochemistry | 4
CHM 121-124 General Chemistry I-II with labs | 8
CHM 453 Biochemistry Laboratory | 2
MIC 328 Introductory Microbiology | 3
ZOO 326 Human Physiology | 3

**Social science** | 15
PLS 112 American Government | 3
History course 101/102/103/106/123/124 | 3
ECO 201 Principles of Economics I | 3
SOC 105 Introductory Sociology | 3
ECO 202 Principles of Economics II or SOC 202 Social Problems | 3

**Arts and humanities** | 12
LIT 100 The Reading of Literature | 3
A second course in literature or oral interpretation (page 26) | 3
A philosophy course | 3
A course in art, music, dance or theatre arts | 2-3

**Practical arts** | 63
**Specialization courses** | 59
HEC 202 Human Nutrition | 3
HEC 211 Experimental Foods | 3
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 I | 2
HEC 393 Food Systems Management I Experience | 2
HEC 394 Food Systems Management I | 2
DTC 402 Nutrient Metabolism | 3
DTC 478 Special Topics: Nutrient Metabolism Lab | 2
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 | 2
DTC 484 Clinical Nutrition II | 2
DTC 485 Clinical Nutrition III | 2
HEC 492 Food Systems Management II Experience | 2
HEC 494 Food Systems Management II | 2
DTC 495 Food Systems Management III | 2
MGT 384 Human Resource Management | 3
MGT 386 Organizational Behavior and Theory | 3

**Physical education and health** | 2
Physical education activity courses | 2
(Electives in Military Science may be applied) | 0
Total | 136-138

**CURRICULUM FOR FASHION MERCHANDISING**

The fashion 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.

In addition to meeting the basic studies requirements (pp. 26-30), all students on this curriculum must complete all other courses specified. These particular curricular, major or minor requirements specify both courses and the number of hours to be completed for a degree. No outside minor is needed.

**Area** | **Sem hours**
--- | ---
**Social science** | 8-12
A course in U.S. government | 1
A course in history | 1
A course in economics | 1
A second course in a two-course sequence in economics | 1

**Cross-cultural or international studies**

At least one approved course in cross-cultural or international studies must be completed in the process of meeting the basic studies requirements (page 30).

**Major in fashion merchandising** | 43-45
FM 105 Integrated Arts | 3
FM 135 Cultural Study of Fashion | 3
FM 145 Introduction to Merchandising | 3
IDE 208 Introduction to Design | 3
FM 235 Textiles for Consumers | 3
FM 255 Apparel Analysis | 3
FM 345 Theories and Practices in Fashion Merchandising I | 3
FM 355 Theories and Practices in Fashion Merchandising II | 3
FM 356 Theories and Practices in Fashion Merchandising II Lab | 1
FM 380 Fashion of the Haute Couture | 3
FM 390 Visual Merchandising | 3
FM 404 Textile Testing | 3
FM 437 Professional Seminar | 3
FM 443 Merchandising of Interior Furnishings | 3
HEC 487 Field Experience | 3
FM elective approved by adviser | 1-3

**Physical education and health** | 2
Physical education activity courses | 2
(Electives in Military Science may be applied) | 2

**Minor in marketing or management** | 21
Required
ACC 240 Principles of Accounting I | 3
MKT 360 Principles of Marketing | 3
MGT 386 Organizational Behavior and Theory | 3
Choose 12 credits from marketing courses or management courses.

**Electives** | 12-13
Total | 124

**CURRICULUM FOR HOSPITALITY MANAGEMENT**

Hospitality management provides an interdisciplinary program that integrates principles of food and hotel management with the physical sciences, social sciences and business. Students must complete the required courses in each of the four areas of the basic studies and the practical arts. In addition to meeting the basic studies requirements, all students on this curriculum must complete all other courses specified. These particular curricular, major or minor requirements specify both courses and the number of hours to be completed for a degree. A minor in management is required.

**Area** | **Sem hours**
--- | ---
**Symbolics and communication** | 14-15
ENG 121 English Composition | 3

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*Note: The above text is a transcription of the document content as read. It is not a complete representation of the entire document but rather a selection of relevant parts.*
Science and technology ................. 10
BIO 105 Biology and the Human Species ... 4
CHM 115 Chemistry and Society ............ 3
PSY 101 General Psychology or IT 240 Science, Technology, and People ................. 3


Arts and humanities ................. 12
Two courses in literature or foreign language literature .. 6
One course in philosophy or religion .. 3
One course in art, music, or theatre arts .. 3

Practical arts ................. 66
Specialization courses ................. 34
HM 103 Introduction to the Hospitality Industry .. 2
HM 180 Foundations of Food Preparation .. 3
HM 204 Sanitation in the Hospitality Industry .. 2
HM 367 Legal Aspects of the Hospitality Industry .. 2
HM 430 Seminar in Hospitality Management .. 2
HM 440 Financial Management in Hospitality Management .. 3
HM 441 Commercial Purchasing .. 3
HM 470 Hospitality Industry Marketing .. 3
HM 496 Hospitality Management Internship .. 5
HEC 277/288/289 Cooperative Education .. 1/2/3
HEC 377/388/389 Cooperative Education .. 1/2/3
HEC 393 Food Systems Management I Experience .. 2
HEC 394 Food Systems Management I .. 2
HEC 494 Food Systems Management II .. 2

Required Specialization Electives: 9
Select 3 courses from:
GEO 113 Foundations of Guest Service
HEC 201 Nutrition for Consumers
HM 251 Meal Service Management
IDE 364 Facility Management
HM 368 Hospitality Information Systems
HEC 492 Food Systems Management II Experience .. 4
Select 1 course from the list below not in the major: .. 2-3
FCS 109 Interpersonal Relations in the Family, IDE 111 Human Factors and Special Needs, IDE 221 Environmental Systems

General Elective ................. 2-3
Select one course from list below:
HED 210 Standard American Red Cross First Aid
GEO 110 World Regions
REC 100 Introduction to Recreation and Leisure
CSC 136 Computers for the Non-Specialist

Elective ......................... 3-5

A course in physical sciences ....... 3
A computer course ................. 3

Curriculum for Interior Design

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 curriculum aims to prepare students to become professional interior designers. The interior design program is accredited by the Foundation for Interior Design Education Research (FIDER).

In addition to meeting basic studies 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 needed.

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, CSC 136 Computers for the Non-Specialist, 1 course in English composition, 1 course in Physical Science, PSY 101 or PSY 102 General Psychology, IT 201 Construction Systems, IDE 210 Interior Design Studio III, IDE 211 Lighting for Interiors, IDE 220 Interior Design Studio IV, FM 235 Textiles for Consumers, 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 a verbal and visual presentation of the portfolio. A minimum of two tenure-track faculty from the Interior Design major and two practicing professional interior designers will evaluate the presentations. Creativity, verbal presentation skills, and potential to do professional interior designs will be judged.

CSC 136 Computers for the Non-Specialist .............. 3
Science and Technology ........................................ 11-12
  A course in physical science ................................. 3
  PSY 101/102 General Psychology .......................... 3
  A course in science or technology .......................... 3
Social science ..................................................... 8-12
  A course in U.S. government .................................. 3
  A course in history .............................................. 3
  A course in anthropology, economics, geography or
  sociology .......................................................... 3
  One of the following:  
    A second course in a two-course history sequence.  
    A second course in a two-course anthropology,  
       economics, geography or sociology sequence.  
       An approved course in cross-cultural or international
       studies.                                    
Arts and humanities .......................................... 8-12
  Requirements 1, 2, and 3 (page 29) ....................... 5-9
  FA 122 Two-Dimensional Design ............................ 3
Cross-cultural or international studies
  Requirement: One course selected from basic studies areas I-IV.
  1. Required courses ........................................... 74
    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
    FA 123 Drawing I ............................................ 3
    IT 201 Construction Systems .................................. 3
    IDE 210 Interior Design Studio III .......................... 4
    IDE 211 Lighting for Interiors ............................. 3
    IDE 220 Interior Design Studio IV .......................... 4
    IDE 221 Environmental Systems for Interiors ............ 2
    FA 231 Three-Dimensional Design .......................... 3
    FM 235 Textiles for Consumers ............................ 3
    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
    MKT 360 Principles of Marketing .......................... 3
    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
    MGT 386 Organizational Behavior and Theory ............. 3
Physical education and health ............................... 2
  Physical education activity courses ....................... 2
  (Any two courses in military science may be applied)
Electives ......................................................... 0-2
Total ..................................................................... 124

ACADEMIC MINORS

CLOTHING AND TEXTILES MINOR

Sem hours
Minor in clothing and textiles .................................. 24
  1. Required courses ............................................ 12
    FM 118 Apparel Studio ....................................... 3
    FM 145 Introduction to Merchandising ...................... 3
    FM 235 Textiles for Consumers ............................. 3
    FM 255 Apparel Analysis ..................................... 3
  2. Restricted electives ........................................ 12
    Choose one course from each of the following areas:
    Construction skills
      FM 302 Fashion Manufacturing Techniques ................. 3
      FM 392 Pattern Design ...................................... 3
    Methodology
      FM 390 Visual Merchandising ............................... 3
      HEC 499 Directed Study .................................... 3
      Social-psychohlogical-historical
        FM 155 Cultural Study of Fashion ........................ 3
        FM 380 Fashion of the Haute Couture .................... 3
      Textiles application
        FM 119 Early American Textiles .......................... 3
        FM 404 Textile Testing .................................... 3
        FM 443 Merchandising of Interior Furnishings ......... 3

HUMAN ENVIRONMENTS MINOR

Sem hours
Minor in human environments ................................ 20-21
  1. Required courses ............................................ 9
    IDE 111 Human Factors and Special Needs ............... 3
    IDE 120 Interior Design Studio II or IDE 208
      Introduction to Basic Design ............................. 3
    IDE 269 Housing for Consumers ............................ 3
  2. Restricted electives ........................................ 11
    IDE 121 Interior Design Materials and Components (3)
      (May not be taken if IDE 208 was elected in core.)
    FCS 109 Interpersonal Relations in the Family (3)
    IDE 211 Lighting for Interiors (3)
    IDE 221 Environmental Systems for Interiors (3)
    IDE 311 History of Interiors: Ancient-1800 (2)
    IDE 321 History of Interiors: 1800-Present (2)
    IDE 364 Facility Management (3)

NUTRITION MINOR

This is a non-teaching minor which benefits students enrolled
in the majors of Nursing, Sports Medicine, and Family and
Consumer Sciences.

Sem hours
Minor in nutrition ................................................. 20
  1. Required courses ............................................ 13
    HEC 201 Nutrition for Consumers .......................... 3
    HEC 211 Experimental Foods ................................. 4
    DTC 312 Community Nutrition ............................... 3
    HEC 412 Nutrition of the Life Cycle ....................... 3
  2. Restricted electives ......................................... 7
    DTC 301 Orientation to Dietetics, DTC 402 Nutrient Metabolism, HEC 498 Directed Study, HEC 487 Field Experience, HED 120 Healthful Living, HED 402 Selecting Health Products and Services, HED 420 Health and Aging

TEACHING MINOR

OCCUPATIONAL FOODS MINOR
(available only to Business Education and Technology Educa-
tion majors)
SECONDARY, K-12, AND SPECIAL EDUCATION-SECONDARY
TEACHER CERTIFICATION

Students who will qualify for the Vocational Secondary Provi-
sional Teaching Certificate may choose to take the courses listed
below in order to earn an endorsement in occupational foods. The
course work will convert to 2,000 hours of supervised experience in
quantity foodservice operations. An additional 2,000 hours of re-
cent and relevant supervised experience in quantity foodservice are
required.

  HM 251 Meal Service Management (3)
  HEC 374 Methods of Teaching Occupational Foods (2)
DTC 393 Food Systems Management I Experience (2)
DTC 394 Food Systems Management II (2)
HM 440 Financial Management in Hospitality Management (3)
HM 441 Commercial Purchasing (3)
HEC 487 Field Experience (3)
DTC 492 Food Systems Management II Experience (4)
DTC 494 Food Systems Management II (1)

23 hours

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 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, by examining the different facets and specializations of the profession, and investigating future trends.

DTC 311 Community Nutrition Experience. 2 hrs
Supervised practice experience in various community nutrition settings, with emphasis on nutrition education techniques and community organization process.
Coreq: DTC 312.

DTC 312 Community Nutrition. 3 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: HEC 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 experience in the clinical nutrition professional environment. With emphasis on nutrition assessment utilizing a review of systems approach.
Coreq: DTC 384.

DTC 384 Clinical Nutrition I. 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 301 and DTC 321.

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: HEC 201 or HEC 202. Coreq: ZOO 326.

DTC 435 Seminar in Dietetics. 2 hrs
Analysis and application of research topics and techniques in foods and nutrition as they apply to the field of dietetics.
Prereq: Senior dietetics or hospitality management 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 clinical experience 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 384. Coreq: DTC 484.

DTC 483 Clinical Nutrition II Experience. 4 hrs
Supervised clinical experience 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. Supervised clinical experiences. Open only to dietetics students.
Prereq: DTC 484.

DTC 485 Clinical Nutrition III. 5 hrs
Formulation, implementation, and evaluation of nutritional care plans for individuals with abnormal nutrient metabolism. Supervised clinical experiences. Open only to dietetics students.
Prereq: DTC 484.

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.
Prereq: HEC 494.

Family and Consumer Science Courses

FCS 109 Interpersonal Relations in the Family. 3 hrs
The skills and attitudes essential for improving interpersonal relationships in groups: work or social networks. Insight into the behavior of self and others will be emphasized to help the student achieve competence in various types of interpersonal relationships.

FCS 450 Adult Role Transitions. 3 hrs
Investigation of changes during early, middle, and later adulthood. Normative and non-normative role transitions related to work and family for women and men.

Fashion Merchandising Courses

FM 105 Integrated Arts. 3 hrs
The application of design elements and principles to human and contemporary environmental needs. Laboratory required.

FM 118 Apparel Studio. 3 hrs
Apparel construction using a commercial pattern. Emphasis is placed on fabric selection, fit, techniques.

FM 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.

FM 135 Cultural Study of Fashion. 3 hrs
A study of the social, psychological, and physical aspects of fashion as related to culture, society, and the individual.
Prereq: PSY 101102 or equivalent.
FM 145 Introduction to Merchandising. 3 hrs
Analysis of the fashion industry from designing to distribution through major domestic and foreign markets. Emphasis is placed on fashion trends and cycles, history of merchandising, and careers. Field trip required.

FM 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.

FM 200 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: FM 105.

FM 235 Textiles for Consumers. 3 hrs
The analytical study of fibers, yarns, fabrics, and finishes with emphasis on the performance of apparel and interiors fabrics. Laboratory required.

FM 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: FM 135 and FM 235.

FM 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.

FM 302 Fashion Manufacturing Techniques. 3 hrs
Experiences and analysis of fashion production. Includes selection of commercial equipment and textiles.
Prereq: FM 118.

FM 345 Theories and Practices in Fashion Merchandising I. 3 hrs
Applications of merchandising mathematical concepts to buying functions and activities. Major focus on problem solving. Field trips required.
Prereq: FM 145.

FM 355 Theories and Practices in Fashion Merchandising II. 2 hrs
Adaptation of fashion merchandising concepts (FM 345) to computer systems. Development of processing tasks using specific merchandising information.
Prereq: FM 345 and CSC 136 or equivalent. Coreq: FM 356.

FM 356 Theories and Practices in Fashion Merchandising II Lab. 1 hr
Implementation and analysis of fashion merchandising functions utilizing computer. Simulation problem solving.
Coreq: FM 355.

FM 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.

FM 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: FM 135 and FM 145.

FM 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.

FM 392 Pattern Design. 3 hrs
Principles of pattern making and special problems in clothing construction and design.
Prereq: FM 118.

FM 404 Textile Testing. 3 hrs
Chemical and physical testing of textile products with emphasis on laboratory techniques, standards, and interpretation of data for consumer use.
Prereq: FM 235 and one laboratory science course.

FM 437 Professional Seminar. 3 hrs
Prereq: Senior standing, FM 355, and FM 356.

FM 439 Fashion Markets. 2 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: Completion of 85 hours and department permission.

FM 443 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.

FM 460 Tailoring. 3 hrs
Fundamental construction processes and special techniques applied to the construction of tailored garments; alterations and adaptations.
Prereq: FM 118.

FM 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.

HOSPITALITY MANAGEMENT COURSES

HM 103 Introduction to the Hospitality Industry. 2 hrs
Orientation to the lodging and foodservice 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.

HM 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.

HM 180 Foundations of Food Preparation. 3 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: CHM 115 or high school chemistry.

HM 204 Sanitation in the Hospitality Industry. 1 hr
Management of basic sanitation in foodservice and lodging facilities. Meets specifications required for National Institute for the Food Service Industry certification.

HM 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.
Prereq: HEC 211 and HEC 201 or HEC 202.

HM 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.
HM 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: CSC 136 or HHS 226.

HM 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.

HM 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.

HM 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, HM 496 (or co-req).

HM 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: HEC 494.

HM 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: HEC 494 or department permission.

HM 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: HEC 494 and MKT 360.

HM 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.

HM 496 Hospitality Management Internship. 5 hrs
Practical experience in managing a hospitality operation including assessing, planning, implementing, evaluating, and training.
Prereq: HEC 494.

HEC 109 Interpersonal Skills and Family. 3 hrs
The skills and attitudes essential for improving interpersonal relationships in groups: work or social network insight into the behavior of self and others will be emphasized to help the student achieve competence in various types of interpersonal relationships.
Prereq: Nine hours in family and child development.

HEC 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.

HEC 201 Nutrition for Consumers. 3 hrs
Study of nutrient needs for the development and maintenance of normal growth and health. Not open to students who take HEC 202.

HEC 202 Human Nutrition. 3 hrs
Study of sources and functions of nutrients and the processes of digestion, absorption, and metabolism in health and disease. For dietetics, sports medicine, and nursing majors. Not open to students who take HEC 201.
Prereq: CHM 120 or CHM 121-122.

HEC 211 Experimental Foods. 4 hrs
Nature and reactions of food explained in terms of chemical composition, microbial flora, and manipulative practices.
Prereq: CHM 120 or CHM 270.

HEC 220 Seminar in Lighting. 1 hr
Development of interior design lighting knowledge through hands-on demonstrations and laboratory experiences with lighting sources, controlling devices, and lighting solutions. Student financed off-campus experience required.
Prereq: Sophomore standing.

HEC 221 Seminar in Contract Design Products. 2 hrs
Examination of contract interior design products through product seminars and hands-on examination of products at the annual contract design conference, NEOCON, held at the Merchandise Mart in Chicago, Ill. Student financed off-campus experience required.
Prereq: Sophomore standing.

HEC 271 Household Equipment and Technology. 3 hrs
Selection factors, basic principles, new technology, and trends in household equipment.

HEC 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.

HEC 287/288/289 Cooperative Education. 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.

HEC 374 Methods of Teaching Occupational Foods. 2 hrs
Responsibilities of occupational home economics teachers, selection of appropriate resources and learning strategies for secondary level occupational programs, relationship of evaluation techniques to total program.
Prereq: FCS 370.

HEC 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.

HEC 387/388/389 Cooperative Education. 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.

HEC 393 Food Systems Management I Experience. 2 hrs
Application of basic components of an operating quantity food service facility. Supervised practice experience.
Coreq: HEC 394.

HEC 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.
Prereq: HEC 211, MGT 386.
HCC 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: HEC 201 or HEC 202.

HCC 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.

HCC 487 Field Experience. 3 hrs
Supervised field experiences working with family social agencies
and/or businesses in the area of specialization emphasizing profes­
sional competencies and self-evaluation. Sections of course offered
for specialization areas as needed. Foreign students need work
permit before registration.
Prereq: Department permission—senior standing.

HCC 490/491 Special Work (Honors). 1/2 hrs
Additional experiences for promising seniors making a more de­
tailed study of some phase of home economics. Work will be based
on a problem of research interest with written and/or oral report.
Regulations regarding honors courses will be observed.
Prereq: Senior standing.

HCC 492 Food Systems Management II Experience. 4 hrs
Principles of food production processes emphasizing financial
and quality controls in institutional foodservice systems. Supem­
vised practice experience.
Prereq: HEC 393. Coreq: HEC 494.

HCC 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.
Prereq: HEC 394, MGT 384, and MIC 328 or HM 204.

HCC 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.

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. Em­
phasis 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 intro­
ductive level residential and contract designs.
Prereq: IDE 110, IDE 131 or concurrent.

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, surface materials, and furnishing materials.

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: IDE 120, FA 122, FA 123.

IDE 211 Lighting for Interiors. 3 hrs
Introduction to lighting design for interior environments with em­
phasis on lighting fundamentals, lighting design process and meth­
ods, and the physiological and psychological effects of light.

IDE 220 Interior Design Studio IV. 4 hrs
Execution of design problems using design process 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 dimen­
sional solutions to intermediate level residential and contract design
problems.
Prereq: IDE 111, IDE 121, IDE 210, IDE 211, FA 231. Prereq or
concurrent: IT 201, IDE 221, FM 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.

IDE 311 History of Interiors: Ancient-1800. 2 hrs
Chronological survey of interior design from ancient times through
the mid-nineteenth century. Emphasis on design, function, construc­
tion, and evolution of interior environments and the sociologi­
cal, 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: CSC 136. Meet criteria for enrollment in 300-level interior
design studio courses.

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 IT 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-nineteenth 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 workplace 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. 1/1/1/3 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: 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: MGT 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: 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: MKT 360, MGT 386.

IDE 449 Facility Programming and Post Occupancy Evaluation. 3 hrs
An examination of the techniques and concepts used in facility programming and post occupancy evaluation and the interrelatedness of these two processes. An emphasis of the use of programming and evaluation in facility management.
Prereq: IDE 111, IDE 313, and IDE 320.

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. 1/1/1/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: Department permission.
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 requirement 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 medical centers, community hospitals, public schools, nursing homes, county health agencies, and home health care agencies. Students are expected to provide their own transportation.

Nursing students are assessed $15.00 per credit hour on all clinical laboratory courses. Fifty percent of these funds go 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).

Certification follows receipt of a Bachelor of Science in Nursing degree (BSN). Students are eligible to qualify as registered nurses through the Michigan Board of Nursing by passing the national nursing licensure examination.

This nursing program is approved by the State of Michigan Board of Nursing and is accredited by the National League for Nursing.

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 follow the same admission procedures as stated above. In addition, registered nurse students must have 1) a valid Michigan Nurse License; 2) achieve at least 45 on the ACT-PEP examination or successful completion of the National League of Nursing Mobility Profile II exams with a minimum decision score of 90. Credit hours from the student's junior or community college are awarded as equivalent to sophomore baccalaureate nursing credits after completion of requirement 2 above.

All information related to academic and professional integrity and clinical learning experiences also apply to RN/BSN completion students.

ACADEMIC PROGRAM

NURSING CURRICULUM

This curriculum leads to the Bachelor of Science in Nursing (BSN) degree and requires the following courses to complete the 124 semester 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.

<table>
<thead>
<tr>
<th>Area</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbols and communication</td>
<td>14-17</td>
</tr>
<tr>
<td>ENG 121 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>CTA 121/124 Fundamentals of Speech</td>
<td>2.3</td>
</tr>
<tr>
<td>Upper level writing composition or speech communication or foreign language</td>
<td>3.5</td>
</tr>
<tr>
<td>Recommend MTH 270 Elementary Statistics or SOC 250 Social Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>Recommend HHS 226 Computers for Health and Human Services</td>
<td>3</td>
</tr>
<tr>
<td>Science and technology</td>
<td>18</td>
</tr>
<tr>
<td>CHM 120 Fundamentals of Organic and Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>PSY 101 General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

ZOO 201 Human Anatomy and Physiology I, ZOO 202 Human Anatomy and Physiology II, and MIC 328 Introductory Microbiology

Social science ......................................................... 12
See basic studies requirements (page 28).

Arts and humanities ............................................... 11-12
See basic studies requirements (page 29).

Required supportive courses ...................................... 7
HEC 202 Human Nutrition .......................................... 3
EDP 325 Life Span Human Growth and Development .......... 4

Required nursing courses for general students ............ 60
NUR 207 Critical Thinking in Nursing ......................... 1
NUR 208 The Art and Science of Nursing I .................... 2
NUR 209 The Art and Science of Nursing I Lab .............. 3
NUR 220 Health Assessment ........................................ 3
NUR 250 The Art and Science of Nursing II ................. 2
*NUR 251 The Art and Science of Nursing II Lab ............ 3
NUR 260 Pathophysiology ......................................... 4
NUR 270 Pharmacology .............................................. 3
NUR 304 Nursing Care of Childbearing Families .......... 2
*NUR 305 Nursing Care of Childbearing Families Lab ... 3
NUR 306 Nursing Care of Childrearing Families .......... 2
*NUR 307 Nursing Care of Childrearing Families Lab ... 3
NUR 308 A Theoretical Basis for Nursing Care of Childbearing Families, Childrearing Families, and Groups ................................................................. 1
NUR 330 Adult Health Nursing I .................................. 1
*NUR 331 Adult Health Nursing I Lab ......................... 2
NUR 350 Psychiatric/Mental Health Nursing ................ 2
*NUR 351 Psychiatric/Mental Health Nursing Lab ......... 3
NUR 372 Nursing Research ......................................... 2
NUR 404 Adult Health Nursing II ............................... 2
*NUR 405 Adult Health Nursing II Lab ....................... 4
NUR 420 The Evolution of Professional Nursing ............ 2
NUR 430 Health Care of Vulnerable Populations .......... 2
NUR 450 Community Health Nursing ......................... 2
*NUR 451 Community Health Nursing Practice .......... 3
NUR 460 Nursing Leadership and Management ............... 3

Required nursing courses for registered nurse students 60
NUR 220 Health Assessment ........................................ 3
NUR 260 Pathophysiology ......................................... 4
NUR 270 Pharmacology .............................................. 3
NUR 308 A Theoretical Basis for Nursing Care of Childbearing Families, Childrearing Families, and Groups ................................................................. 1
NUR 310 Concepts of Professional Practice ................. 2
NUR 340 Concepts of Professional Practice II ............ 3
*NUR 341 Concepts of Professional Practice II Clinical Laboratory ................................................................. 3
NUR 420 The Evolution of Professional Nursing ............ 2
NUR 430 Health Care of Vulnerable Populations .......... 2
NUR 450 Community Health Nursing ......................... 2
*NUR 451 Community Health Nursing Practice .......... 3
NUR 460 Nursing Leadership and Management ............... 3
NLN Mobility Profile Exam II .................................... 30

Physical education and health courses ....................... 2
(Any two courses in military science may be applied)     
Electives .................................................................. 12-14
Total ........................................................................ 124

* A lab fee of $15.00 per credit hour is assessed on each clinical laboratory course.
### NURSING EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 177/178/179</td>
<td>Special Topics</td>
<td>1/2/3 hrs</td>
<td>Admission to the nursing program</td>
<td></td>
</tr>
<tr>
<td>NUR 204</td>
<td>Framework for Nursing</td>
<td>6 hrs</td>
<td>Study of the concepts and skills upon which professional nursing is based. The nature of nursing, the interrelatedness of man and his environment, the health/illness continuum, and the health care delivery system.</td>
<td>Admission to the nursing program, department permission.</td>
</tr>
<tr>
<td>NUR 207</td>
<td>Critical Thinking in Nursing</td>
<td>1 hr</td>
<td>Provides exploration of critical thinking in the professional domain and its application to the nursing process.</td>
<td>Admission to the nursing program. Coreq: NUR 208, 209, 220.</td>
</tr>
<tr>
<td>NUR 209</td>
<td>The Art and Science of Nursing I Lab</td>
<td>3 hrs</td>
<td>This companion course to NUR 207 and NUR 208 provides laboratory/practical experience in nursing care of adults in predictable states of disharmony and harmony.</td>
<td>Admission to the nursing program. Coreq: NUR 207, NUR 208, 220.</td>
</tr>
<tr>
<td>NUR 210</td>
<td>Use of the Nursing Process</td>
<td>2 hrs</td>
<td>Study of the four components of the nursing process and their implementation in nursing practice. Lecture: two hours per week.</td>
<td>Department permission.</td>
</tr>
<tr>
<td>NUR 220</td>
<td>Health Assessment</td>
<td>3 hrs</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>NUR 250</td>
<td>The Art and Science of Nursing II</td>
<td>2 hrs</td>
<td>Continues the development of knowledge and skills basic to nursing care of adults in predictable states of disharmony and harmony.</td>
<td>NUR 207, NUR 208, NUR 209, NUR 220. Coreq: NUR 251, MIC 328, NUR 260, NUR 270.</td>
</tr>
<tr>
<td>NUR 251</td>
<td>The Art and Science of Nursing II Lab</td>
<td>3 hrs</td>
<td>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.</td>
<td>NUR 207, NUR 208, NUR 209, NUR 220. Coreq: NUR 250, MIC 328, NUR 260, NUR 270.</td>
</tr>
<tr>
<td>NUR 260</td>
<td>Pathophysiology</td>
<td>4 hrs</td>
<td>The dysfunctions created by major physical illnesses, theories of causation, and signs and symptoms of the more usual syndromes.</td>
<td>Admission to the nursing program.</td>
</tr>
<tr>
<td>NUR 270</td>
<td>Pharmacology</td>
<td>3 hrs</td>
<td>The fundamental principles of pharmacology including the action of drug groups on the human body and how drugs are administered, metabolized and excreted.</td>
<td>Admission to the nursing program.</td>
</tr>
</tbody>
</table>

**NUR 277/278/279 Special Topics**

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.

**Prereq:** Department permission.

**NUR 304 Nursing Care of Childbearing Families**

Focuses on maternal-newborn nursing within a family centered approach. The course encompasses the entire childbearing process, from preconception planning through pregnancy, birth, and the postpartum period. Students use a scientific knowledge base and selected 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 from diverse populations.

**Prereq:** Completion of sophomore-level nursing courses. Coreq: NUR 305, NUR 308.

**NUR 305 Nursing Care of Childbearing Families Lab**

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. Coreq: NUR 304, NUR 308.

**NUR 306 Nursing Care of Childrearing Families**

Focus is on assisting students in the learning of nursing care for children and their families in 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. Coreq: NUR 307, NUR 308.

**NUR 307 Nursing Care of Childrearing Families Lab**

Clinical application of nursing knowledge from NUR 306 to the care of children and their families in various clinical settings.

**Prereq:** Completion of sophomore-level nursing courses. Coreq: NUR 306, NUR 308.

**NUR 308 A Theoretical Basis for Nursing Care of Childbearing Families, Childrearing Families, and Groups**

Focuses on students gaining an understanding of theories both in nursing and related disciplines in family, groups, and the impact of stress and illness for this population.

**Prereq:** Completion of sophomore-level nursing courses.

**NUR 310 Concepts of Professional Practice**

The concepts upon which professional nursing is based. Adaptation theory introduced and applied to the concepts of the individual, family, groups, and community. Lecture: Two hours per week.

**Prereq:** Admission to RN/BSN nursing completion program.

**NUR 330 Adult Health Nursing I**

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. Coreq: NUR 331.
NUR 331 Adult Health Nursing I Lab. 2 hrs
Clinical application of nursing knowledge from NUR 330 to the care of adult clients in a variety of health care settings.
Prereq: Completion of sophomore-level nursing courses. Coreq: NUR 330.

NUR 340 Concepts of Professional Practice II. 3 hrs
Content includes the processes used by the professional nurse in practice, and concepts of community health nursing. Primary and tertiary prevention are emphasized. Lecture: three hours per week.
Prereq: NUR 270, NUR 310, NUR 370, EDP 325.

NUR 341 Concepts of Professional Practice II Clinical Laboratory. 3 hrs
Clinical nursing practice occurs in schools and community mental health settings. Students work with clients as individuals and in groups. Emphasis is on the use of the nursing process in the promotion of family and community health. Laboratory: Six hours per week.
Prereq: NUR 270, NUR 310, NUR 370, EDP 325.

NUR 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: NUR 308.

NUR 351 Psychiatric/Mental Health Nursing Lab. 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: NUR 308.

NUR 360 Gerontological Nursing. 2 hrs
Provides an overview of normal bio-psychosocial changes in aging and nursing interventions to promote optimal wellness.
Prereq: Department permission.

NUR 361 Oncology Nursing. 2 hrs
Focuses on the assessment and management of adults and children with cancer. Care of the family living with cancer and strategies for adaptation are identified and discussed.
Prereq: Department permission.

NUR 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.

NUR 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 one provided different topics are studied.
Prereq: Department permission.

NUR 380 Health and Illness Problems Throughout the Life Span. 2 hrs
An overview of common health problems and an orientation to terminology and concepts related to health care delivery. Etiologies, prevention, and treatments for selected illnesses and the biopsychological impact of these illnesses for the individual, family, and community. For non-nursing students.
Prereq: Department permission.

NUR 390 Seminar: Theories of Nursing. 2 hrs
Theory and its relationship to the advancement of the nursing discipline. A realistic explanation of the language, a basic view of the value of theories, an explanation of the development and evaluation of theories and an overview of current nursing theory. Lecture: two hours per week.
Prereq: Junior or senior standing in the generic program and department permission. Admission to RN/BSN completion program and department permission.

NUR 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: NUR 405.

NUR 405 Adult Health Nursing II Lab. 4 hrs
Clinical application of nursing knowledge from NUR 404 to the care of adult clients in a variety of health care settings.
Prereq: Completion of junior-level nursing courses. Coreq: NUR 404.

NUR 410 Concepts of Nursing Practice III. 2 hrs
The nurse's role in secondary health care with emphasis on planning beyond the hospital setting. Communication skills necessary for group interaction, concepts of stress, and crisis management and intervention. Lecture: two hours per week.
Prereq: NUR 270, NUR 370, NUR 340, NUR 341, NUR 390.

NUR 411 Concepts of Nursing Practice III Clinical Laboratory. 3 hrs
Contracted learning experiences in maternal-child, mental health or medical-surgical nursing based on the outcome of portfolio assessment. Laboratory: one hour per week or equivalent.
Prereq: NUR 270, NUR 340, NUR 341, NUR 370, NUR 390 or department permission.

NUR 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.

NUR 430 Health Care of Vulnerable Populations. 2 hrs
Examines the health care needs of vulnerable populations.
Prereq: Completion of junior-level nursing courses.

NUR 460 Nursing Leadership and Management. 3 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.

NUR 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.
NUR 451 Community Health Nursing. 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: NUR 450.

NUR 477/478/479 Special Topics. 1/2 hrs
Experimental courses or special topics in nursing may be offered (to be announced).
Prereq: Department permission.

NUR 497/498/499 Independent Study. 1/2 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
Donald M. Loppnow
Department Head
411 King Hall
487-0393

Professors: Kaaren Brown, Don Ifill, Linda F. Kurtz, Ronald Lewis, Donald M. Loppnow, Marjorie Ziefert
Associate Professors: Elvia Krajewski-Jaime, Enos Massie, Crystal Mills, George Mink, Lynn Nybell, Leroy Watts
Assistant Professors: Sylvia Sims Gray, Elizabeth Kaufman, Elizabeth Schuster, Marilyn Wedenoja

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 and minor in social work and is distinct among baccalaureate social work programs in offering an extensive series of supplemental courses that form the Family and Children’s Services program and the Health Care Services program.

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.

Degree: Bachelor of Science or Bachelor of Arts

Programs of Study
Curriculum:
- Social work (professional degree)
Minor:
- Social work
Supplemental/elective programs:
- Family and children’s services
- Health care services

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 Department of Social Work 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 Department of Social Work, 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 EDP 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 (SWK 408 Social Work Practice II, and SWK 488 Field Experience I) to be eligible to continue in the second semester (SWK 409 Social Work Practice III and SWK 489 Field Experience II). Students who receive a grade of "E" in either semester of field placement (SWK 488-489 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 placement 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 (SWK 488 Field Experience I) must take SWK 408 Social Work Practice II concurrently. Students enrolling for the second term of field placement (SWK 489 Field Experience II) must take SWK 409 Social Work Practice III concurrently. In addition, students must take SWK 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.

ACADEMIC MAJOR

SOCIAL WORK CURRICULUM

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 (*).

Area

Symbolics and communication ........................................ 14-15
Science and technology ................................................... 13
Social science ............................................................... 63

1. Required courses

*ANT 135 Introduction to Cultural Anthropology .............. 3
*SOC 105 Introductory Sociology ..................................... 3
*SOC 462 Complex Organizations .................................... 3
*Two courses on statistics and research completed by taking either Option 1 or Option 2 ...................................... 6

Option 1

SOC 341 Quantitative Methods of Social Research I .......... 3
SOC 342 Quantitative Methods of Social Research II ........ 3

Option 2

SOC 250 Social Statistics I (fulfills Area I-mathematical reasoning) .......................................................... 3
SOC 304 Methods in Sociological Research ....................... 3
*SWK 120 Introduction to Social Work Services and Professional Roles .......................................................... 3
*SWK 222 Social Welfare Policies and Services ............... 3
*SWK 315 Theoretical Bases for Social Work Practice .... 3
*SWK 317 Social Work Practice I .................................... 3
*SWK 360 Practice Issues with People of Color ............... 3
*SWK 388 Pre-Professional Practicum ............................ 3
*SWK 403 Practice Issues with Women ........................... 3
*SWK 405 Analysis and Change of Social Welfare Policies .......................................................... 3
*SWK 408 Social Work Practice II ................................. 3
*SWK 409 Social Work Practice III ................................. 3
*SWK 488 Field Experience I ......................................... 6
*SWK 489 Field Experience II ......................................... 6

2. Restricted electives

*Choose two courses from the following:

AAS 101 Introduction to African American Studies
AAS 221 African American Social Movements
AAS 232 Urbanization and the African American Community
AAS 311 The African Diaspora
AAS 351 The Social Context of African American Health
AAS 361 The African American Family
AAS 379 Special Topics: Gender, Race, and Class
AAS 441 Law in the African American Experience
ANT/SOC 205 Minority Women in the United States
ANT/SOC 214 Racial and Cultural Minorities
ANT 233 Peoples and Cultures of Mexico
ANT 236 Peoples and Cultures of Africa
ANT 237 Indians of North America
ANT 248 Peoples and Cultures of the Pacific
CTA 374 Intercultural Communication
SUPPLEMENTAL ELECTIVE PROGRAMS

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 and health care. This program is not a major or minor.

In order to complete the FCSP, the student-practitioner must complete any one of three options intended to prepare students for professional roles in providing health care services. It is intended as supplemental content for students working toward a bachelor's degree 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 distributed as follows:

<table>
<thead>
<tr>
<th>Option</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Option</td>
<td>3</td>
</tr>
<tr>
<td>Substance Abuse Option</td>
<td>3</td>
</tr>
<tr>
<td>Mental Health Option</td>
<td>3</td>
</tr>
</tbody>
</table>

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 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 coursework.

SOCIAL WORK COURSES

SWK 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.
SWK 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 unique and different from existing social work courses. Since topics change, a student may take the course more than once.
Prereq: SWK 120.

SWK 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 socio-cultural conditions, and prevailing ideologies.
Prereq: SWK 120.

SWK 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 unique and different from existing social work courses. Since topics change, a student may take the course more than once.
Prereq: Department permission.

SWK 287 Cooperative Education. 3 hrs
Employment for pay in a work setting chosen to provide practical experience related to social work. The cooperative education sequence is alternated with full-time attendance at the University. Students who wish to substitute a cooperative education course for the practicum component of SWK 388 must enroll in SWK 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: SWK 120, sophomore standing, approval of the cooperative education office, and department permission.

SWK 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: SWK 120, SWK 222, PSY 101, SOC 105, and EDP 325; or department permission. ANT 135 and PSY 360 recommended.

SWK 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 SWK 388.
Prereq: SWK 120, SWK 222, and SWK 315. Non-social work majors must have department permission.

SWK 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 variations are examined in the context of social work values and practice.
Prereq: SWK 377/378/379 Special Topics.

SWK 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 unique and different from existing social work courses. Since topics change, a student may take the course more than once.
Prereq: Department permission.

SWK 387 Cooperative Education. 3 hrs
Employment for pay in a work setting chosen to provide practical experience related to social work. The cooperative education sequence is alternated with full-time attendance at the University. Students who wish to substitute a cooperative education course for the practicum component of SWK 388 must enroll in SWK 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: SWK 120, sophomore standing, approval of the cooperative education office, and department permission.

SWK 388 Pre-Professional 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 SWK 317.
Prereq: Non-social work majors must have junior standing, SWK 120, and department permission.

SWK 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 affect social work practice with women.
Prereq: SOC 344 or PSY 242, or department permission.

SWK 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 SWK 408 and SWK 488.
Prereq: SWK 120, SWK 222, and either PLS 112 or PLS 202.

SWK 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 SWK 405 and SWK 488.
Prereq: SWK 317, SWK 360, and SWK 388.

SWK 409 Social Work Practice III. 3 hrs
A continuation of SWK 408; examines in more depth a variety of social work practice models, interventive strategies, methods, roles, and skills. Must be taken concurrently with SWK 489 Field Experience II.
Prereq: SWK 405 and SWK 408.

SWK 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 or senior standing.

SWK 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 social/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: SWK 120, SWK 222, or department permission.

SWK 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: SWK 120, SWK 222, or department permission.
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: SWK 120, SWK 222, or department permission.

SWK 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: SWK 120, SWK 222, or department permission.

SWK 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: SWK 120, SWK 222, or department permission.

SWK 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: SWK 120, SWK 222, or department permission.

SWK 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: SWK 120 and SWK 222 or department permission. No prerequisites for non-social work students who are majoring in health disciplines and who have at least junior standing.

SWK 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 settings. Prereq: SWK 120 and SWK 222 or department permission.

SWK 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: SWK 120, SWK 222, or department permission.

SWK 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: SWK 120 and SWK 222, or department permission.

SWK 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: SWK 120, SWK 222, or department permission.

SWK 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: SWK 120, SWK 222, or department permission.

SWK 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: SWK 120, SWK 222, or department permission.

SWK 467 Crisis Intervention. 2 hrs
Systems in crisis including different types of crises, indicators of a system in crisis and crisis intervention strategies. Prereq: SWK 120 and SWK 222, or department permission.

SWK 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: SWK 120, SWK 222, or department permission.

SWK 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 unique and different from existing social work courses. Since topics change, a student may take the course more than once. Prereq: SWK 120, SWK 222, or department permission.

SWK 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 Department of Social Work, 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 SWK 405 and SWK 408. Prereq: SWK 315, SWK 317, SWK 360, SWK 388, and department permission.

SWK 489 Field Experience II. 6 hrs
A continuation of SWK 488. A student must receive a "C" or better in SWK 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 SWK 409.

SWK 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.

SWK 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.
**GERONTOLOGY**

Elizabeth Schuster  
Coordinator  
416 King Hall  
487-2465

Lecturer: Anne Robinson

The gerontology minor is administered by the Department of Social Work in the College of Health and Human Services through an Interdisciplinary Coordinating Committee composed of faculty who are actively involved in the gerontology field. The 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.

### ACADEMIC MINOR

#### GERONTOLOGY MINOR

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 239 Biology of Aging</td>
<td>2</td>
<td>Gerontology minor or equivalent.</td>
</tr>
<tr>
<td>SOC 311 Social Gerontology</td>
<td>3</td>
<td>Gerontology minor or equivalent.</td>
</tr>
<tr>
<td>PSY 323 Psychology of Human Aging</td>
<td>3</td>
<td>Gerontology minor or equivalent.</td>
</tr>
<tr>
<td>SWK 420 Working with Aging People</td>
<td>3</td>
<td>Gerontology minor or equivalent.</td>
</tr>
<tr>
<td>GRT 488/489 Gerontology Practicum</td>
<td>2-3</td>
<td>Department permission.</td>
</tr>
</tbody>
</table>

**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 GRT 488/489.

#### Electives

Students are required to complete elective requirements by choosing courses from the following three content areas:

**Psychosocial and environmental aspects of aging**
- EDP 325 Life Span Human Growth and Development (4)
- EDP 402 Learning in the Later Years (3)
- OT 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)
- HEC 201 Nutrition for Consumers or HEC 202 Human Nutrition (3)
- IDE 269 Housing for Consumers (3)
- REC 310 Leisure and the Older Adult (3)
- NUR 360 Gerontological Nursing (2)
- HEC 412 Nutrition of the Life Cycle (3)
- PED 479 Special Topics: Health and Aging (3)

**Policies and services for the aging**
- HAD 300 Health Care Issues (2)
- HAD 310 Administration of Health Care Organizations (3)
- ECO 327 Inequality and Economic Justice (3)
- SWK 413 Women and Aging (3)
- SWK 424 Social Work with Physically and Mentally Handicapped (3)
- SWK 457 Separation, Loss, and Grief (1)
- GRT 417 Work and Retirement (2)

**GERONTOLOGY COURSES**

**GERONTOLOGY Minor**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRT 177/178/179 Special Topics</td>
<td>1/2/3 hrs</td>
<td>Specialized topics integral to the field of gerontology. Gerontology faculty members will select contemporary topics that are unique and different from existing courses. Since topics change, a student may elect to take the course more than once.</td>
</tr>
<tr>
<td>GRT 277/278/279 Special Topics</td>
<td>1/2/3 hrs</td>
<td>Specialized topics integral to the field of gerontology. Gerontology faculty members will select contemporary topics that are unique and different from existing courses. Since topics change, a student may elect to take the course more than once.</td>
</tr>
<tr>
<td>GRT 377/378/379 Special Topics</td>
<td>1/2/3 hrs</td>
<td>Specialized topics integral to the field of gerontology. Gerontology faculty members will select contemporary topics that are unique and different from existing courses. Since topics change, a student may elect to take the course more than once.</td>
</tr>
<tr>
<td>GRT 404 Gerontology Interdisciplinary Seminar</td>
<td>3 hrs</td>
<td>Gerontology Interdisciplinary Seminar.</td>
</tr>
<tr>
<td>GRT 417 Work and Retirement</td>
<td>2 hrs</td>
<td>Work and Retirement.</td>
</tr>
<tr>
<td>GRT 477/478/479 Special Topics</td>
<td>1/2/3 hrs</td>
<td>Specialized topics integral to the field of gerontology. Gerontology faculty members will select contemporary topics that are unique and different from existing courses. Since topics change, a student may elect to take the course more than once.</td>
</tr>
<tr>
<td>GRT 488/489 Gerontology Practicum</td>
<td>2/3 hrs</td>
<td>Gerontology Practicum.</td>
</tr>
<tr>
<td>GRT 518 Issues in Caring for People with Alzheimer's Disease</td>
<td>3 hrs</td>
<td>Gerontology Issues in Caring for People with Alzheimer's Disease (3)</td>
</tr>
</tbody>
</table>

**Gerontology**

Select from courses with a GRT prefix. Selected 500-level courses are available with approval.

### 400 LEVEL COURSES

#### GRT 404 Gerontology Interdisciplinary Seminar

3 hrs  
Prereq: Department permission.

#### GRT 417 Work and Retirement

2 hrs  
Prereq: Senior standing, completion of two courses in the gerontology minor or equivalent.

#### GRT 477/478/479 Special Topics

1/2/3 hrs  
Prereq: Department permission.

#### GRT 488/489 Gerontology Practicum

2/3 hrs  
Prereq: Department permission.

#### GRT 518 Issues in Caring for People with Alzheimer's Disease

3 hrs  
Prereq: Department permission.

### 500 LEVEL COURSES

#### GRT 518 Issues in Caring for People with Alzheimer's Disease

3 hrs  
Prereq: Department permission.
COLLEGE OF TECHNOLOGY

Thomas K. Harden, Dean
Victoria L. Gotts, Administrative Associate
150 Sill Hall
487-0354

DEPARTMENTS

Business and Industrial Education
Industrial Technology
Interdisciplinary Technology
Military Science
COLLEGE OF TECHNOLOGY

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 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 technological management positions in production, research, and marketing for business and industry.

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. 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.

The college currently is comprised of the departments of Business and Industrial Education, Industrial Technology, Interdisciplinary Technology, and Military Science. Inherent in the interdisciplinary program is the use of existing courses and personnel throughout the University.

Shared with the College of Arts and Sciences are two preparatory programs: pre-architecture and pre-engineering. The Industrial Technology department provides advising coordination for these programs.

Degrees offered by the college are the Bachelor of Science degree and the Bachelor of Business Education degree, described under the Business and Industrial Education department.

BUSINESS AND INDUSTRIAL EDUCATION

Ann M. Remp
Department Head
14 Sill Hall
487-4330

Professors: Alice W. Callum, Thomas K. Harden, Gerald L. Jennings, Lewis D. Kieft, Ann M. Remp, H. James Rokusek, Rosetta C. Wingo

Associate Professors: James L. Barnes, Thomas L. McDole, Earl C. Meyer, Herbert H. Wilson

Assistant Professors: John R. Cordani, David W. Leopard

Lecturer: Konnie Kustron

The Business and Industrial 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
Industrial 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
Executive assistant
Legal assistant
Office automation

Minor:
Office technology

Advising Coordinators:
Administrative management: Konnie Kustron
Business services and technology education: Rosetta C. Wingo
Executive assistant: Konnie Kustron
Legal assistant: Alice W. Callum
Marketing education: Earl C. Meyer
Office automation: John R. Cordani
Office technology minor: John R. Cordani
Technology education/Industrial-vocational education: Gerald L. Jennings

Technology education minor: Lewis D. Kieft

Graduate study leads to the Master of Business Education degree and the Master of Arts degree in industrial education. For a description of the graduate program and courses, consult the Graduate Catalog.
ACADEMIC MAJORS

OFFICE TECHNOLOGY CURRICULUM

The Bachelor of Science degree is designed for individuals preparing for administrative management, executive assistant, legal assistant (paralegal profession), and office automation careers. Individuals who complete this professional curriculum should find many career opportunities open to them.

Students should follow the basic studies guidelines in the catalog under which they entered the University. Students following the new basic studies must include a course in cross cultural or international studies within the basic studies. Please follow general guidelines except for specific requirements as noted below.

Students without appropriate background or prerequisites which 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.

OFFICE TECHNOLOGY/ADMINISTRATIVE MANAGEMENT MAJOR

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.

<table>
<thead>
<tr>
<th>Area / Requirement</th>
<th>Sem Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Symbolics and communication</strong></td>
<td>17-18</td>
</tr>
<tr>
<td>Requirements 1 and 2</td>
<td>5-6</td>
</tr>
<tr>
<td>ENG 324 Principles of Technical Communication</td>
<td>3</td>
</tr>
<tr>
<td>MTH 118 Mathematical Analysis for Social Sciences I-II</td>
<td>6</td>
</tr>
<tr>
<td>BE 201 Microcomputers for Business Applications</td>
<td>3</td>
</tr>
<tr>
<td><strong>Science and technology</strong></td>
<td>9-10</td>
</tr>
<tr>
<td>Requirements 1 and 3</td>
<td>6-7</td>
</tr>
<tr>
<td>PSY 101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Social science</strong></td>
<td>12</td>
</tr>
<tr>
<td>Requirements 1 and 2</td>
<td>6</td>
</tr>
<tr>
<td>ECO 201-202 Principles of Economics I-II</td>
<td>6</td>
</tr>
<tr>
<td><strong>Arts and humanities</strong></td>
<td>12</td>
</tr>
<tr>
<td>Requirements 1, 2, 3, and 4</td>
<td>12</td>
</tr>
<tr>
<td><strong>Physical education and health</strong></td>
<td>2</td>
</tr>
<tr>
<td>Physical education activity courses</td>
<td>2</td>
</tr>
</tbody>
</table>

ADMINISTRATIVE MANAGEMENT MAJOR

Administrative management major | 50
Administrative and information management concepts | 21
BE 395 Office Administration | 3
BE 396 Records Administration | 3
BE 495 Office Automation | 3
BE 496 Records Administration Using Database | 3
MGT 384 Human Resource Management | 3
MGT 485 Human Resource Development | 3
Restricted elective | 3
Choose one course: MKT 374 Business to Business Marketing or from additional restricted elective list.

Business foundations | 21
BE 100 Contemporary Business | 3
ACC 240-241 Principles of Accounting I-II | 6
FIN 350 Principles of Finance | 3
LAW 293 Legal Environment of Business | 3
MKT 360 Principles of Marketing | 3
DS 265 Business Statistics I | 3

Information processing | 8
BE 123 Word Processing/Keyboarding Applications | 2
BE 210 Concepts of Word/Information Processing | 3
BE 224 Computer-based Business Mathematics | 3

OFFICE TECHNOLOGY/EXECUTIVE ASSISTANT MAJOR

The executive assistant major prepares individuals for administrative support positions. Students receive a solid foundation in office technology skills and applications, business principles, communication skills, and office systems.

<table>
<thead>
<tr>
<th>Area / Requirement</th>
<th>Sem Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Symbolics and communication</strong></td>
<td>14-15</td>
</tr>
<tr>
<td>Requirements 1 and 2</td>
<td>5-6</td>
</tr>
<tr>
<td>ENG 324 Principles of Technical Communication</td>
<td>3</td>
</tr>
<tr>
<td>MTH 118 Mathematical Analysis for Social Sciences I</td>
<td>3</td>
</tr>
<tr>
<td>BE 201 Microcomputers for Business Applications</td>
<td>3</td>
</tr>
<tr>
<td><strong>Science and technology</strong></td>
<td>9-10</td>
</tr>
<tr>
<td>Requirements 1 and 3</td>
<td>6-7</td>
</tr>
<tr>
<td>PSY 101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Social science</strong></td>
<td>12</td>
</tr>
<tr>
<td>Requirements 1 and 2</td>
<td>6</td>
</tr>
<tr>
<td>ECO 201-202 Principles of Economics I-II</td>
<td>6</td>
</tr>
<tr>
<td><strong>Arts and humanities</strong></td>
<td>8-12</td>
</tr>
<tr>
<td>Requirements 1, 2, 3, and 4</td>
<td>2</td>
</tr>
<tr>
<td><strong>Physical education, military science, or equivalent</strong></td>
<td>2</td>
</tr>
</tbody>
</table>

Executive assistant major | 55 sem hrs

Administrative and information systems | 18
BE 395 Office Administration | 3
BE 396 Records Administration | 3
MGT 386 Organizational Behavior and Theory | 3
MGT 402 Business Report Writing | 3
BE 422 Office Systems | 3
BE 496 Records Administration Using Database | 3

Business foundations | 18
BE 100 Contemporary Business | 3
MGT 202 Business Communications | 3
ACC 240-241 Principles of Accounting I-II | 6
LAW 293 Legal Environment of Business | 3
MKT 360 Principles of Marketing | 3

Information processing | 16
*BE 123 Word Processing/Keyboarding Applications | 2
BE 210 Concepts of Word/Information Processing | 3
BE 220 Word/Information Processing Operations | 3
BE 222 Transcription Applications and Technology | 3
BE 224 Computer-based Business Mathematics | 3
*BE 325 Advanced Notetaking and Transcription for Professionals | 2

*Students without appropriate background must take BE 122 Keyboarding for Office Technology and/or BE 225 Notetaking Skills for Professionals | 2-4

Restricted electives | 3
CTA 321 Parliamentary Procedure and Meeting Management (3)
BE 387 Cooperative Education (3)
IDT 436 Electronic Publishing Technology (3)

OFFICE TECHNOLOGY/LEGAL ASSISTANT (PARALEGAL) MAJOR

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, preparing for trial, and using computer-assisted research tools. Employment opportunities
are excellent in law firms, corporations, banks, hospitals, state and federal government, and court systems. This major offers professional training and lays a foundation for a career in the legal field. This program is accredited by the American Bar Association.

Area

Sem hours
Symbolics and communication ................................................................. 14-15
Requirements 1, 2, and 4 (page 26) ......................................................... 8-9
BE 201 Microcomputers for Business Applications ............................ 3
ENG 324 Principles of Technical Communication ................................. 3
Science and technology ............................................................................... 9-10
See University guidelines (page 27)
Social science ............................................................................................ 12
Requirements 1 and 2 (page 28) ................................................................. 6
ECO 201-202 Principles of Economics I-II ............................................. 6
Arts and humanities .................................................................................... 12
Requirements 1, 2, 3, and 4 (page 29)
Physical education and health ................................................................. 2
Physical education activity courses ......................................................... 2
Legal assistant (paralegal) major ............................................................. 59

1. Required courses .................................................................................... 33
BE 211 Introduction to Paralegalism and Legal Terminology .............. 3
BE 220 Word/Information Processing Operations ............................... 3
BE 304 Legal Writing, Research, and Analysis I ................................... 3
BE 305 Advanced Legal Writing, Research, and Analysis II ............... 3
BE 308 Personal Injury Law and Litigation ............................................. 3
BE 311 Probate, Estates, and Wills .......................................................... 3
BE 313 Family Law .................................................................................... 3
CTA 357 Interviewing as Communication .............................................. 3
BE 411 Civil Litigation, Investigation, and Procedure .......................... 3
BE 412 Court Rules, Forms, and Legal Drafting .................................. 3
BE 416 Legal Assistant Internship (Paralegal) ....................................... 3
BE 414 Advanced Probate, Estates, and Trusts .................................... 3
BE 415 Bankruptcy Law ........................................................................... 3
BE 497/498/499 Independent Study ....................................................... 1-3
PLS 301 The American Legal System ..................................................... 3
PLS 341 International Law ....................................................................... 3
PLS 456 Criminal Law I ......................................................................... 3
RES 210 Real Estate Principles and Practices ......................................... 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
BE 100 Contemporary Business ............................................................. 3
BE 123 Word Processing/Keyboarding Applications ............................ 2
BE 224 Computer-based Business Mathematics ................................ 3
ACC 240 Principles of Accounting I ....................................................... 3
BE 395 Office Administration ................................................................. 3
BE 396 Records Administration ............................................................. 3

OFFICE TECHNOLOGY/OFFICE AUTOMATION

MAJOR

The major in office automation 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.

Area

Sem hours
Symbolics and communication ................................................................. 17-18
Requirements 1 and 2 (page 26) ................................................................. 5-6
ENG 324 Principles of Technical Communication ................................. 3
MTH 118-119 Mathematical Analysis for Social Sciences I-II ............ 3
Science and technology ............................................................................... 9-10
See University guidelines (page 27)
Social science ............................................................................................ 12
Requirements 1 and 2 (page 28) ................................................................. 6
ECO 201-202 Principles of Economics I-II ............................................. 6
Arts and humanities .................................................................................... 8-12
Requirements 1, 2, 3, and 4 (page 29)
Physical education and health ................................................................. 2
Physical education activity courses ......................................................... 2
Office automation major ............................................................................ 56
Systems and automation concepts ......................................................... 24
BE 310 Word/Information Processing Administration ........................ 3
BE 395 Office Administration ................................................................. 3
BE 396 Records Administration ............................................................. 3
BE 422 Office Systems ............................................................................. 3
BE 495 Office Automation ..................................................................... 3
BE 496 Records Administration Using Database ................................... 3
BE 387 Cooperative Education ............................................................... 3
Choice of one: ......................................................................................... 3
BE 487 Cooperative Education, IDT 305 Communication Transmission Systems, IDT 436 Electronic Publishing Technology

Business foundations .................................................................................. 21
BE 100 Contemporary Business ............................................................. 3
ACC 240-241 Principles of Accounting I-II ............................................ 6
ACC 342 Managerial Cost Accounting ................................................... 3
LAW 293 Legal Environment of Business ............................................ 3
MKT 360 Principles of Marketing ............................................................. 3
DS 265 Business Statistics I ..................................................................... 3

Information processing ............................................................................. 11
BE 123 Word Processing/Keyboarding Applications ............................ 2
BE 210 Concepts of Word/Information Processing .............................. 3
BE 220 Word/Information Processing Operations ............................... 3
BE 224 Computer-based Business Mathematics ................................ 3

Office Technology Restricted Electives

Students should select restricted electives in consultation with their office technology program advisers.

BE 122 Keyboarding for Office Technology (2) .................................... 3
BE 205 Women in Business ................................................................. 3
BE 210 Concepts of Word/Information Processing (3) ....................... 3
BE 211 Introduction to Paralegalism and Legal Terminology ................ 3
BE 220 Word/Information Processing Operations ................................ 3
BE 224 Computer-based Business Mathematics ................................ 3
BE 225 Notetaking Skills for Professionals (2) ..................................... 3
BE 310 Word/Information Processing Administration ....................... 3
BE 325 Advanced Notetaking and Transcription for Professionals (2) 3
BE 344 Administration of Computer Systems (3) ............................... 3
BE 387 Cooperative Education (3) ......................................................... 3
BE 497/498/499 Independent Study ....................................................... 1-3

ACADEMIC MINOR

OFFICE TECHNOLOGY

Sem hours
Office technology minor ........................................................................... 21
Required courses ..................................................................................... 12
BE 201 Microcomputers for Business Applications ............................ 3
BE 220 Word/Information Processing Operations ............................. 3
BE 224 Computer-based Business Mathematics ................................ 3
BE 395 Office Administration ................................................................. 3
TEACHING MAJORS

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 non-teaching careers in business open to them.

BUSINESS SERVICES AND TECHNOLOGY EDUCATION

SECONDARY TEACHER CERTIFICATION

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."

Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. MTH 118 Mathematical Analysis for Social Sciences I (3)
I-B-5. BE 201 Microcomputers for Business Applications (3)*
II-B-1. Basic Studies requirement. See inside back cover
II-B-2. PSY 101 General Psychology (3)*
II-B-3. Basic Studies requirement. See inside back cover
Any other course listed in group II-B-1 above
III-B-1. Basic Studies requirement. See inside back cover
III-B-2. Basic Studies requirement. See inside back cover
*Students are advised to select a course which also satisfies the multicultural requirement of Basic Studies)
III-B-3. ECO 201 Principles of Economics I (3)
III-B-4. ECO 202 Principles of Economics II (3)
IV-B-1. Basic Studies requirement. See inside back cover
IV-B-2. Basic Studies requirement. See inside back cover
IV-B-3. Basic Studies requirement. See inside back cover
IV-B-4. Basic Studies requirement. See inside back cover
Physical education, military science, or equivalent (2)

CREDIT HOURS IN BASIC STUDIES: .................................................. 49

Teaching Major

See note "a" above for courses applicable to both Basic Studies and the major.

BE 100 Contemporary Business (3)
BE 123 Word Processing/Keyboarding Applications (2)
BE 210 Concepts of Word/Information Processing (3)
BE 220 Word/Information Processing Operations (3)
BE 222 Transcription Applications and Technology (3)
BE 224 Computer-based Business Mathematics (3)
ACC 240-241 Principles of Accounting I-II (6)
ACC 244 Personal Tax Accounting (2)
Accounting concentration courses (6)
BE 250 Personal Finance (3)
LAW 293 Legal Environment of Business (3)
BE 310 Word/Information Processing Administration (3)
MKT 360 Principles of Marketing (3)
BE 395 Office Administration (3)
BE 396 Records Administration (3)
BE 496 Records Administration Using Database (3)

Subtotal, Teaching Major: ............................................................ 52

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
BE 200 Principles of Marketing and Business Education (3)
SON 300 Exceptional Children in the Regular Classroom (1)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
BE 364 Methods of Teaching General Business Subjects (2)
BE 365 Methods of Teaching Office Education (2)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ............................................ 33

Total credit hours required: ......................................................... 134

*Pre-requisite for another course in program.

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

MARKETING EDUCATION

SECONDARY TEACHER CERTIFICATION

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 "GX," or, with appropriate work experience, certification code "VB." The certification test covering this field is #36, "Marketing (Distributive Education)."

Basic Studies

I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. Basic Studies requirement. See inside back cover
I-B-4. MTH 118 Mathematical Analysis for Social Sciences I (3)

*Students must take BE 123 Word Processing/Keyboarding Applications if they do not have appropriate background.

Choose one option ................................................................. 9

Option I Notetaking:
BE 225 Notetaking Skills for Professionals .................. 2
BE 325 Advanced Notetaking and Transcription for Professionals .................. 2
BE 222 Transcription Applications and Technology .................. 3
Restricted elective .................................................. 2

Option II Information Processing:
BE 210 Concepts of Word/Information Processing .................. 3
BE 222 Transcription Applications and Technology .................. 3
BE 396 Records Administration .................. 3

CREDIT HOURS IN BASIC STUDIES: .................................................. 49

*Pre-requisite for another course in program.

At least one approved course in cross-cultural or international studies must be completed in the process of meeting the Basic Studies requirements of the foregoing Areas I-IV. Approved courses are designated with an asterisk (*).
Subtotal: 320

IV-B-2. *BE 200 Principles of Marketing and Business Education (3)

IV-B-4. *BE 201 Microcomputers for Business Applications (3)

III-B-3. ECO 201 Principles of Economics I (3)

III-B-4. ECO 202 Principles of Economics II (3)

IV-B-1. Basic Studies requirement. See inside back cover

IV-B-2. Basic Studies requirement. See inside back cover

(Students are advised to select a course which also satisfies the multicultural requirement of Basic Studies)

III-B-3. ECO 201 Principles of Economics I (3)

III-B-4. ECO 202 Principles of Economics II (3)

IV-B-1. Basic Studies requirement. See inside back cover

IV-B-2. Cross-cultural or international studies

*PLA 215 The Culture of the Latino Groups in the United States (3)

*LIT 204 Native American Literature (3)

*LIT 260 African American Literature (3)

IV-B-3. Basic Studies requirement. See inside back cover

IV-B-4. Basic Studies requirement. See inside back cover

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: 49

Teaching Major

ACC 240-241 Principles of Accounting I-II (6)
BE 100 Contemporary Business (3)
LAW 293 Legal Environment of Business (3)

MGT 386 Organizational Behavior and Theory (3)

MKT 261 Contemporary Selling (3)

MKT 360 Principles of Marketing (3)

MKT 261 Contemporary Selling (3)

MKT 360 Principles of Marketing (3)

MKT 365 Buyer Behavior (3)

Two of:

LAW 393 Law of Business Enterprises (3)

MGT 384 Human Resource Management (3)

MGT 388 Introduction to Entrepreneurship (3)

MGT 485 Human Resource Development (3)

MKT 369 Advertising (3)

MKT 374 Business to Business Marketing (3)

MKT 461 Sales Management (3)

Eleven hours from:

BE 122 Keyboarding for Office Technology (2)

BE 123 Word Processing/Keyboarding Applications (2)

BE 201 Microcomputers for Business Applications (included in Basic Studies requirements) (3)

BE 224 Computer-based Business Mathematics (3)

BE 250 Personal Finance (3)

BE 387 Cooperative Education in Business Education (3)

BE 487 Cooperative Education in Business Education (3)

BE 497/498/499 Independent Study (1-2/3)

FM 145 Introduction to Merchandising (3)

FM 235 Textiles for Consumers (3)

FM 255 Apparel Analysis (3)

FM 439 Fashion Markets (2)

IE 452 Principles of Vocational-Technical Education (3)

4000 clock hours (or equivalent) of recent work experience in the field of marketing (0)

Subtotal, Major: 44

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)

BE 200 Principles of Marketing and Business Education (3)

SGN 300 Exceptional Children in the Regular Classroom (1)

EDP 322 Human Development and Learning (4)

*BE 388 Management of Marketing Education Programs (2)

*BE 461 Projects and Simulations in Marketing Education (2)

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

RDG 311 Teaching Reading in the Secondary School (3)

SFD 328 Social Aspects of Teaching (3)

EDP 340 Introduction to Assessment and Evaluation (3)

BE 364 Methods of Teaching General Business Subjects (2)

BE 366 Methods of Teaching Marketing Education (2)

*BE 367 Curriculum in Marketing Education (2)

EDU 492 Student Teaching (12)

Credit hours in Professional Studies: 39

Total credit hours required: 132

Satisfy six additional hours in major to bring major requirements to 50 hours.

Prerequisite for another course in program.

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

INDUSTRIAL EDUCATION CURRICULUM

The Industrial Education curriculum prepares teachers of technology education for the middle and senior high school, and teachers of industrial-vocational subjects for the senior high school 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 areas.

INDUSTRIAL-VOCATIONAL EDUCATION

SECONDARY TEACHER CERTIFICATION

The Industrial-Vocational major is designed to prepare teachers of industrial-vocational subjects for senior high school and community college vocational education programs. Graduate who complete this major 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 Industrial Education curriculum. This major qualifies individuals to teach in only selected 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.

Basic Studies

I-B-1. ENG 121 English Composition (3)

I-B-2. Basic Studies requirement. See inside back cover

I-B-3. One of:

ENG 324 Principles of Technical Communication (3)

ENG 326 Research Writing (3)

I-B-4. One of:

MTH 112 Topics in Precalculus Mathematics (4)

MTH 118 Mathematical Analysis for Social Sciences I (3)

MTH 120 Calculus I (4)
The following courses require formal admission to the teacher education program:
SFD 328 Social Aspects of Teaching (3)
RDG 311 Teaching Reading in the Secondary School (3)
*IE 350 Curriculum in Technology and Industrial-Vocational Education (3)
IE 460 Practicum in Technology and Industrial-Vocational Education (2)
IE 461 The Teaching of Technology and Industrial-Vocational Education (2)
EDP 340 Introduction to Assessment and Evaluation (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ........................................38

Total credit hours required: .................................................. 136

*Satisty 6 additional hours in major to bring major requirements to 50 hours.
*At least one approved course in cross-cultural or international studies
must be completed in the process of meeting the Basic Studies requirements of the foregoing Areas I-IV. Approved courses are
designated with an asterisk (*).

TECHNOLOGY EDUCATION
SECONDARY TEACHER CERTIFICATION

The technology education major is designed to prepare 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 industrial arts. 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 Industrial 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 arts, certification code "IX." The certification test covering this field is #38, "Industrial Arts."

Basic Studies
I-B-1. ENG 121 English Composition (3)
I-B-2. Basic Studies requirement. See inside back cover
I-B-3. One of:
   ENG 324 Principles of Technical Communication (3)  
   ENG 326 Research Writing (3)
I-B-4. One of:
   MTH 112 Topics in Precalculus Mathematics (4) 
   MTH 118 Mathematical Analysis for Social Sciences I (3) 
   MTH 120 Calculus I (4)
I-B-5. One of:
   BE 201 Microcomputers for Business Applications (3)  
   CSC 136 Computers for the Non-Specialist (3)  
   CSC 137 Introduction to FORTRAN Programming (3) 
   IDT 201 Microcomputer Applications in Technology (3)  
   IT 105 Computer Applications for Industry (3)

II-B-1. One of:
   CHM 119 Fundamentals of Chemistry (4) 
   CHM 121-122 General Chemistry I with lab (4)
II-B-2. Basic Studies requirement. See inside back cover
II-B-3. One of:
   PHY 221 Mechanics, Sound, and Heat (4) 
   PHY 223 Mechanics, Sound, and Heat (5)
III-B-1. Basic Studies requirement. See inside back cover, or:
   SFD 202 State and Local Government (3)

Physical education, military science, or equivalent (2)

Credit hours in Professional Studies: ........................................54

Teaching Major
IDT 150 Understanding Technology (3)
IE 246 Safety in Technology and Industrial-Vocational Education (2)
IE 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.

Subtotal, Major and minor: .................................................. 44

Professional Studies
100 clock hours of approved pre-student teaching field experiences (0)
*IE 250 Foundations of Technology and Industrial-Vocational Education (3)
   SGN 251 Education of Exceptional Children (3)
   EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
SFD 328 Social Aspects of Teaching (3)
RDG 311 Teaching Reading in the Secondary School (3)
*IE 350 Curriculum in Technology and Industrial-Vocational Education (3)
IE 460 Practicum in Technology and Industrial-Vocational Education (2)
IE 461 The Teaching of Technology and Industrial-Vocational Education (2)
EDP 340 Introduction to Assessment and Evaluation (3)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ........................................38

Total credit hours required: .................................................. 136

*Satisty 6 additional hours in major to bring major requirements to 50 hours.
*At least one approved course in cross-cultural or international studies
must be completed in the process of meeting the Basic Studies requirements of the foregoing Areas I-IV. Approved courses are
designated with an asterisk (*).
III-B-2. Basic Studies requirement. See inside back cover

III-B-3 and III-B-4. Either option:

a. Principles courses
   ECO 201-202 Principles of Economics I-II (6)
   ECO 200 The American Economy (3)
   ECO 300 Contemporary Economics (3)

b. Other economics courses
   ECO 200 The American Economy (3)
   ECO 300 Contemporary Economics (3)

IV-B-1. Two of:
   LIT 100 The Reading of Literature (3)
   LIT 101 The Reading of Literature: Fiction (3)
   LIT 102 The Reading of Literature: Poetry (3)
   LIT 103 The Reading of Literature: Drama (3)
   LIT 150 Humanity and Technology (3)

IV-B-2. One of:
   *FLA 215 The Culture of the Latino Groups in the United States (3)
   *LIT 204 Native American Literature (3)
   *LIT 260 African American Literature (3)
   *PHI 226 Philosophy of Women (3)
   *FA 222 African and African American Art (3)
   *CTA 151 African American Theatre: An Introduction (3)

IV-B-3. One of:
   PHI 100 Introduction to Philosophy (3)
   PHI 130 Introduction to Logic (3)
   PHI 150 Humanity and Technology (3)

IV-B-4. FA 122 Two-Dimensional Design (3)

Physical education, military science, or equivalent (2)

Credit hours in Basic Studies: ........................................54

Teaching Major
IE 103 Structures and Design in Technology (3)
IE 106 Processing Technology (3)
IE 114 Information and Control Technology (3)
IE 118 Energy Technology (3)
IDT 121 Graphic Communication (3)
IT 123 Manufacturing Processes and Methods I (3)
IT 125 Introduction to Construction (2)
IT 200 Industrial Electricity and Controls I (3)
IE 246 Safety in Technology and Industrial-Vocational Education (2)
IE 450 Solving Technological Problems (3)

Sixteen hours from one of the following concentrations determined in consultation with the program adviser:

Construction (16 hours from among):
IT 201 Construction Systems (3)
IT 206 Surveying (3)
IT 229 Analysis of Commercial Prints (3)
IT 303 Electrical, Mechanical, and Equipment Systems (3)
IE 387 Cooperative Education (3)
IT 402 Construction Materials (3)
IE 487 Cooperative Education (3)

Manufacturing (16 hours from among):
IT 103 Introduction to Automation (3)
IT 124 Manufacturing Processes and Methods II (3)
IT 202 Plastics (3)
IT 215 Machine Tool Metalworking (3)
IT 218 Industrial Electricity and Controls II (3)
IT 223 Engineering Graphics II (3)
IT 231 Industrial Computer Graphics (3)
IT 251 Material Analysis and Testing (3)
IT 316 Manufacturing Tooling (3)
IT 318 Fluid Power (3)
IT 361 Computer Numerical Control (3)
IE 387 Cooperative Education (3)
IT 417 Industrial Robotics (3)
IT 425 Advanced Manufacturing Methods (3)

IE 487 Cooperative Education (3)

Graphic Communications (16 hours from among):
Drafting Option
IT 101 Introduction to Industrial Drawing (3)
IT 122 Engineering Graphics I (3)
IT 206 Surveying (3)
IT 223 Engineering Graphics II (3)
IT 228 Construction Drawing (3)
IDT 231 Introduction to Computer Graphic Systems (3)
IT 7231 Industrial Computer Graphics (3)
IT 324 Industrial Drawing (3)
IE 387 Cooperative Education (3)
IT 431 Interactive Industrial Computer Graphics (3)
IT 4323-D Computer-Aided Design (3)
IT 433 Advanced Computer-Aided Design (3)
IE 487 Cooperative Education (3)

Graphic Arts Option
IDT 104 Introduction to Communication Technology (2)
IDT 204 Photographic Communication (3)
IDT 205 Photo-Technology (2)
IDT 207 Photographic Reproduction (3)
IDT 304 Advanced Photographic Communication (3)
IDT 305 Communication Transmission Systems (3)
IDT 318 Graphic Arts Workshop (3)
IE 387 Cooperative Education (3)
IDT 404 Photo Communication Workshop (3)
IDT 409 Emerging Technologies in Storage and Retrieval (3)
IDT 421 Photographic Typesetting (3)
IDT 425 Communication Technology and Social Change (3)
IDT 436 Electronic Publishing Technology (3)
IE 487 Cooperative Education (3)

Power (16 hours from among):
Electronics option
IT 218 Industrial Electricity and Controls II (3)
IT 314 Integrated Circuits: Digital (3)
IE 387 Cooperative Education (3)
IT 414 Integrated Circuits: Linear (3)
IT 415 Communication Circuits (3)
IT 434 Microcomputer Circuits (3)
IE 487 Cooperative Education (3)
Energy Systems option
IT 219 Techniques of Energy Control (3)
IT 318 Fluid Power (3)
IT 325 Applied Mechanics, Kinematics, and Design (3)
IE 387 Cooperative Education (3)
IT 417 Industrial Robotics (3)
IE 487 Cooperative Education (3)

Subtotal, Major and related areas: ...................................44

Professional Studies

100 clock hours of approved pre-student teaching field experiences (0)
IE 250 Foundations of Technology and Industrial-Vocational Education (3)
SGN 251 Education of Exceptional Children (3)
EDP 322 Human Development and Learning (4)

The following courses require formal admission to the teacher education program:
RDG 311 Teaching Reading in the Secondary School (3)
SFD 328 Social Aspects of Teaching (3)
EDP 340 Introduction to Assessment and Evaluation (3)
*IE 350 Curriculum in Technology and Industrial-Vocational Education (3)
IE 460 Practicum in Technology and Industrial-Vocational Education (2)
IE 461 The Teaching of Technology and Industrial-Vocational Education (2)
EDU 492 Student Teaching (12)

Credit hours in Professional Studies: ................................................. 36

Total credit hours required: ......................................................... 134

* Satisfy 6 additional hours in major to bring major requirements to 50 hours.
* At least one approved course in cross-cultural or international studies must be completed in the process of meeting the Basic Studies requirements of the foregoing Areas I-IV. Approved courses are designated with an asterisk (*).

TEACHING MINOR

TECHNOLOGY EDUCATION
ELEMENTARY AND SPECIAL EDUCATION-ELEMENTARY
TEACHER CERTIFICATION

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in industrial arts, certification code "IX." The certification test covering this field is #38, "Industrial Arts."

One of:
*IE 253 Technology Education for Children (3) and IE 354 Experiences in Technology for Children (2)
*IE 252 Prevocational/Vocational Special Needs Program (4)

11-12 credits from:
IE 103 Structures and Design in Technology (3)
IE 106 Processing Technology (3)
IE 114 Information and Control Technology (3)
IE 118 Energy Technology (3)
IE 152 Arts and Crafts (3)
IE 250 Foundations of Technology and Industrial-Vocational Education (3)
IE 355 Seminar in Technology for the Elementary School (2)

Additional credits from:
IDT 121 Graphic Communication (3)
IDT 204 Photographic Communication (3)
IE 350 Curriculum in Technology and Industrial-Vocational Education (3)
IE 452 Principles of Vocational-Technical Education (3)
IE 497 Independent Study (1)

Hours from the requirements above must total at least 24.
21 hours for elementary program; 20 hours for special education programs.

* Satisfied in professional studies in elementary program.
* Satisfied in professional studies in special education programs.

BUSINESS EDUCATION COURSES

BE 100 Contemporary Business. 3 hrs

BE 119 Keyboarding for Computers. 2 hrs
Basic touch keyboarding skills for persons who plan to work with modern information processors, all of which utilize a basic alphabet/figure keyboard and/or a 10-key numeric pad. Lab fee required. For non-majors.

BE 122 Keyboarding for Office Technology. 2 hrs
Basic techniques and manipulative skills for efficient machine operation. Speed and control emphasized. Introduction to applications through centering, tabulating, and structuring keyboarded material for various purposes. Lab fee required.

BE 123 Word Processing/Keyboarding Applications. 2 hrs
Continued skill development. Application of skill to keyboarding special communication forms, letters, manuscripts and tabulated reports. Improved form and punctuation. Lab fee required.
Prereq: BE 119 or BE 122 or one year of high school word processing or keyboarding. No credit is given to students who have received credit for two years of high school word processing.

BE 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.

BE 200 Principles of Marketing and Business Education. 3 hrs
An introduction to marketing and office education. The scope and importance of vocational education with emphasis on marketing and office education. Pre-student teaching experience will be initiated in conjunction with this course.

BE 201 Microcomputers for Business Applications. 3 hrs
Computer hardware and software for office use including both mainframe and microcomputer systems. "Hands-on" experience limited to microcomputers. Basic skills in using prepared software and developing programs for office applications using Microsoft BASIC. Requires no prior knowledge of computers or programming. Lab fee required.

BE 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.

BE 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.

BE 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.

BE 220 Word/Information Processing Operations. 3 hrs
Advanced document applications including merge and list processing, graphics, math operations, and database integration. Keyboarding speed and accuracy is also included, as well as refinement of proofreading and editing skills. Lab fee required.
Prereq: BE 123 or equivalent and BE 201.

BE 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: BE 220.
BE 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: BE 201 or department permission.

BE 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. 
Prereq: BE 123 or equivalent.

BE 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.

BE 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 resources. Emphasis is given to preparing and writing legal memoranda. Extensive use of library law materials is required. 
Prereq: ENG 121.

BE 305 Advanced Legal Writing, Research, and Analysis II. 3 hrs This course will build upon skills acquired in BE 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 on-line legal research to complete their brief. Special emphasis will be placed on students improving their legal writing techniques. Lab fee required. 
Prereq: BE 304.

BE 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.

BE 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: BE 201, BE 210, BE 220.

BE 311 Probate, Estates, and Wills. 3 hrs The student will study the Probate Code and probate procedures, descendents' estates, death and inheritance taxes, and other related problems. Special attention will be given to wills and how wills are drafted.

BE 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 toward the legal assistant's role in preparing course documents and other tasks of the paralegal in this area.

BE 325 Advanced Notetaking and Transcription for Professionals. 2 hrs A continuation of BE 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: BE 123 and BE 225, or equivalent.

BE 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 mini-computer forms as a program and as a complete system. The course will emphasize the daily tasks a small/medium system administrator must accomplish. 
Prereq: BE 201, BE 224, BE 306, ENG 234.

BE 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: RDG 311 and EDP 322. A 2.5 GPA in all business education subjects taken at EMU is required before enrollment, with no academic probation. To be taken semester before student teaching. Admission to the teacher education program.

BE 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: EDP 322 and BE 364. A 2.5 GPA in all business education subjects taken at EMU is required before enrollment, with no academic probation.

BE 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: EDP 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.

BE 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 non-classroom curriculum delivery systems, and implementation of curriculum evaluation and revision procedures. Examines current trends in marketing education curriculum.

BE 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.

BE 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.
BE 377 Cooperative 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.

BE 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: BE 201.

BE 396 Records Administration. 3 hrs
Management methodology in records, control, costs, protection, retention, retrieval and disposal. Records administration as a management tool. Prereq: BE 201.

Note: Students are expected to have taken ENG 121 and BE 211 before taking the following legal assisting classes: BE 411, BE 412, BE 414, BE 415, BE 416.

BE 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.

BE 412 Court Rules, Forms, and Legal Drafting. 3 hrs
Study will be made of Michigan Court Rules and court forms commonly used in the Michigan Court system. The student will learn the practical aspects of preparing court forms for a variety of legal actions. Drafting legal documents, such as contracts and papers of incorporation, will be included.

BE 414 Advanced Probate, Estates, and Trusts. 3 hrs
This course will build upon the material covered in BE 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: BE 311.

BE 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.

BE 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 at completion of the internship. Where appropriate criteria are met, Cooperative Education can be substituted for an Internship. Prereq: Permission of Instructor, BE 304, BE 305, BE 411, BE 412.

BE 422 Office Systems. 3 hrs
Integration of automated office subsystems such as word processing, graphics, transcription, calendaring, scheduling, accounting, and records management into the office setting. Lab fee required. Prereq: BE 220, BE 224.

BE 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. Prereq: Department permission.

BE 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.

BE 487 Cooperative 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: BE 387.

BE 495 Office Automation. 3 hrs
Overview of office automation and its relationship to information, information technology, and the application of information technology to the office. Significant new technologies and systems, how to apply these effectively, how to organize for office automation and how to implement office automation. Lab fee required. Prereq: BE 201, BE 210, BE 220, BE 224, BE 395.

BE 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 listings, master record listings and records retention schedules. Extensive applications using database software. Lab fee required. Prereq: BE 201 and BE 396.

BE 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.

INDUSTRIAL EDUCATION COURSES

IE 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. Pre- or coreq: FA 122.

IE 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.

IE 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.
IE 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.

IE 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.

IE 152 Arts and Crafts. 3 hrs
Experience in design and use of a wide variety of craft materials. Vocational and recreational use of craft media. Lab fee required.

IE 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.

IE 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.

IE 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 pre-student teaching activities.

IE 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.

IE 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.

IE 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.

IE 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 selection and development of procedures for evaluating technology and industrial-vocational education students and programs.
Prereq: IE 250.

IE 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: IE 253. Lab fee required.

IE 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: IE 354.

IE 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.

IE 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.

IE 387 Cooperative Education. 3 hrs
Industrial 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 industrial education only.
Prereq: Department permission.

IE 450 Solving Technological Problems. 3 hrs
A capstone experience in the technology component of the industrial education curriculum. Student applies problem solving techniques to arrive at the solution to a technological problem.
Prereq: IE 103, IE 106, IE 114, IE 118, IE 350; senior standing and department approval.

IE 452 Principles of Vocational-Technical Education. 3 hrs
Concepts and principles of vocational-technical education; current issues in vocational education in Michigan.
Prereq: IE 350 or department permission.

IE 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 IE 461 and student teaching.
Prereq: IE 350.

IE 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 IE 460 and student teaching.
Prereq: IE 350.

IE 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.

IE 487 Cooperative Education. 3 hrs
The second in a two-course sequence for industrial 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 industrial education only. Credit/no credit. Prereq: IE 387 and department permission.

IE 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-chair. Prereq: Department permission.

INDUSTRIAL TECHNOLOGY

Everett N. Israel
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118 Sill Hall
487-2040

Professors: Jerald A. Griess, Everett N. Israel, John J. Jellema, Max E. Kanagy, Su-Chen (Jonathon) Lin, Walter W. Tucker, John A. Weeks
Associate Professors: Daniel J. Fields, Erik Lokensgard, Thomas G. Soyster
Assistant Professors: Robert E. Chapman, Alfred C. Roth, Fuh-Cwo (Tony) Shiue, Pamela K. Speelman, Tracy S. Tillman
Instructors: Lawrence L. Darling, Peter J. Loughney, Philip Rufe, James J. Stein

The Industrial Technology department offers two curricula: construction management with one major and a minor, and manufacturing with two majors and a minor. In addition, two pre-professional programs are shared with the College of Arts and Sciences—pre-architecture and pre-engineering. Advising for these programs is provided by this department.

Degree: Bachelor of Science

Programs of Study
Construction curriculum
Major:
Construction management
Minor:
Construction management

Manufacturing curriculum
Majors:
Computer-aided design
Manufacturing
Concentrations:
Computer-aided manufacturing
Manufacturing technology
Plastics
Manufacturing (transfer)

Pre-professional programs:
Pre-engineering
Pre-architecture

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 requirements for graduation. A new student in the department not assigned to an adviser should call the department office (487-2040) for an appointment.

Advisers:
Computer-aided design: Jerald Griess, Tony Shiue, Pamela Speelman
Computer-aided manufacturing: Max Kanagy, Jonathon Lin
Construction management: Larry Darling, Peter Loughney, James Stein, John Weeks
Manufacturing (transfer): John Jellema
Manufacturing technology: Alfred Roth, Tracy Tillman, Walter Tucker
Plastics: Erik Lokensgard
Pre-engineering: Tracy Tillman
Pre-architecture: Peter Loughney

Graduate study leads to the Master of Science degree in industrial technology. Available areas of concentration are manu-
facturing, quality, and construction management. These degrees are described in the Graduate Catalog.

ACADEMIC MAJORS

CONSTRUCTION CURRICULUM

The construction curriculum includes course work in basic studies with specified science and mathematics courses, recommended business course selectives (a list of recommended course electives that require the prior approval of a construction management adviser), and technical courses. A minor is not required.

CONSTRUCTION MANAGEMENT MAJOR

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 major construction associations, and feedback from employers and graduates. The construction management major reflects the current needs and trends in the construction industry.

Area

<table>
<thead>
<tr>
<th>Symbolics and communication</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CTA 121 Fundamentals of Speech</td>
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<tr>
<td>ENG 121 English Composition</td>
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<td>ENG 324 Principles of Technical Communication</td>
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<td>IT 105 Computer Applications for Industry</td>
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<tr>
<td>MTH 107 Plane Trigonometry</td>
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<td>MTH 118-119 Mathematical Analysis for Social Sciences I-II</td>
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<td>CHM 119 Fundamentals of Chemistry</td>
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<td>PHY 221 Mechanics, Sound, and Heat</td>
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<td>PSY 101 General Psychology</td>
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<td>A course in history</td>
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<td>A course in literature</td>
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<td>A course in cross-cultural or international studies</td>
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<td>Major in construction management</td>
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<td>IT 125 Introduction to Construction</td>
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<td>IT 201 Construction Systems</td>
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<td>IT 206 Surveying</td>
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<td>IT 213 Construction Safety</td>
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<td>IT 228 Construction Drawing</td>
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<td>IT 229 Analysis of Commercial Prints</td>
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<td>IT 301 Planning and Scheduling</td>
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<td>IT 302 Contract Documents, Regulations, and Specifications</td>
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<td>IT 303 Electrical, Mechanical, and Equipment Systems</td>
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<td>IT 401 Construction Estimating and Bidding</td>
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<td>IT 402 Construction Materials</td>
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<td>IT 403 Production Control</td>
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<td>IT 406 Construction Law</td>
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<td>IT 450 Fundamentals of Construction Project Management</td>
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<tr>
<td>GLG 160 Physical Geology</td>
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<td>ACC 130 Accounting for Non-Business Majors</td>
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<tr>
<td>LAW 293 Legal Environment of Business</td>
<td>3</td>
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<td>MGT 384 Human Resource Management</td>
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<tr>
<td>Construction management restricted elective</td>
<td>3</td>
</tr>
</tbody>
</table>

(Advisor approval required)

Math/science restricted elective | 3 |

Business restricted elective | 6 |

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 |
MGT 202 Business Communications | 3 |
MGT 360 Supervisory Theory and Practice | 3 |
MGT 386 Organizational Behavior and Theory | 3 |
MGT 484 Management-Union Relations | 3 |
MKT 300 Principles of Marketing | 3 |
IS 215 End-User Computing | 3 |
DS 265 Business Statistics I | 3 |

Physical education and health | 2 |

Physical education activity courses | 2 |

Free electives | 1-2 |

Total | 124 |

MANUFACTURING CURRICULUM

The manufacturing curriculum includes course work in basic studies with specified science and mathematics course, manufacturing core courses, and major courses in computer-aided design (CAD), computer-aided manufacturing (CAM), manufacturing, and plastics technology. A minor is not required.

COMPUTER-AIDED DESIGN MAJOR

Men and women majoring in computer-aided design (CAD) are prepared for a wide range of computer-related job opportunities. Graduates are employed in industry as CAD engineers, software development engineers, applications programmers, technical support engineers, systems managers, training consultants, entry-level designers, as well as in equipment sales and support. The applications of computer graphics are becoming more diverse and are found in many areas such as architecture, medicine, mapping, facilities management, and government.

The CAD major includes a core of manufacturing courses designed to provide a well-rounded graduate with hands-on experiences. Engineering graphics courses are included to provide an understanding of the process of producing models on the computer. In the CAD courses the students gain knowledge of graphics programming concepts involving interactive 2-D and 3-D wireframe drawing, hidden surface removal, shaded surfaces, business graphics, animation, interfaces, menu and icon development, database management, and microcomputer applications.

Area

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<tr>
<td>PHY 222 Electricity and Light</td>
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<td>Social science</td>
<td>12</td>
</tr>
<tr>
<td>PLS 112 American Government</td>
<td>3</td>
</tr>
</tbody>
</table>

(Advisor approval required)

Math/science restricted elective | 3 |

Business restricted elective | 6 |

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 |
MGT 202 Business Communications | 3 |
MGT 360 Supervisory Theory and Practice | 3 |
MGT 386 Organizational Behavior and Theory | 3 |
MGT 484 Management-Union Relations | 3 |
MKT 300 Principles of Marketing | 3 |
IS 215 End-User Computing | 3 |
DS 265 Business Statistics I | 3 |

Physical education and health | 2 |

Physical education activity courses | 2 |

Free electives | 1-2 |

Total | 124 |
A course in history ......................................................... 3
ECO 201-202 Principles of Economics I-II ..................... 6

**Arts and humanities** ............................................. 11-12
A course in philosophy or religion ................................ 3
A course in art, dance, music, or theatre arts ................. 2-3
A course in literature .................................................. 3
A course in cross-cultural or international studies .......... 3

**Major in CAD** ....................................................... 60
CSC 137 Introduction to FORTRAN Programming .......... 3
CSC 250 Programming for CAD/CAM .............................. 3
IT 103 Introduction to Automation ............................... 3
IT 106 Industrial Computer Applications for Manufacturing ........................................... 3
IT 122 Engineering Graphics I .................................... 3
IT 123-124 Manufacturing Processes and Methods I-II ...... 6
IT 203 Industrial Operation ......................................... 3
IT 223 Engineering Graphics II ................................... 3
IT 231 Industrial Computer Graphics ............................ 3
IT 316 Manufacturing Tooling ...................................... 3
IT 324 Industrial Drawing ........................................... 3
IT 325 Applied Mechanics, Kinematics, and Design ....... 3
IT 387 Cooperative Education ....................................... 3
IT 431 Interactive Industrial Computer Graphics .......... 3
IT 432 3-D Computer-Aided Design .............................. 3
IT 433 Advanced Computer-Aided Design ..................... 3
IT 435 Finite Element Analysis ..................................... 3
A course in technical management ............................... 3
Elective (must be approved by adviser) ....................... 3

**Physical education and health** ................................ 2
Physical education activity courses .............................. 2
(Military science courses may be substituted for physical education.)

**Free electives** ...................................................... 4-5
Total ............................................................................ 124

**MANUFACTURING MAJOR**

The manufacturing major consists of four concentrations: computer-aided manufacturing, manufacturing technology, plastics, and manufacturing (transfer). Majors must complete the Basic Studies 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.

**Area** \[Sem hours\]

**Symbolics and communication** ................................ 19
CTA 121 Fundamentals of Speech ................................ 2
ENG 121 English Composition ..................................... 3
ENG 324 Principles of Technical Communication .......... 3
IT 105 Computer Applications for Industry .................. 3
MTH 107 Plane Trigonometry ...................................... 2
MTH 118-119 Mathematical Analysis for Social Sciences II ........................................... 6

**Science and technology** ........................................... 15
CHM 121 and 122 General Chemistry I ......................... 4
PHY 221 Mechanics, Sound, and Heat ......................... 4
PHY 222 Electricity and Light ...................................... 4
PSY 101 General Psychology ....................................... 3

**Social science** ....................................................... 12
PLS 112 American Government .................................... 3
A course in history .................................................... 3
ECO 201-202 Principles of Economics I-II ..................... 6

**Arts and humanities** ............................................. 11-12
A course in philosophy or religion ................................ 3
A course in art, dance, music, or theatre arts ................. 2-3
A course in literature .................................................. 3
A course in cross-cultural or international studies .......... 3

**Physical education and health** ................................ 2
Physical education activity courses .............................. 2
(Military science courses may be substituted for physical education.)

Total ............................................................................ 59-60

**COMPUTER-AIDED MANUFACTURING CONCENTRATION**

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 in the future.

**Major in CAM** ....................................................... 60
IT 103 Introduction to Automation ............................... 3
IT 106 Industrial Computer Applications for Manufacturing ........................................... 3
IT 122 Engineering Graphics I .................................... 3
IT 123-124 Manufacturing Processes and Methods I-II ...... 6
IT 200 Industrial Electricity and Controls I ..................... 3
IT 203 Industrial Operation ......................................... 3
IT 218 Industrial Electricity and Controls II ..................... 3
IT 223 Engineering Graphics II ................................... 3
IT 316 Manufacturing Tooling ...................................... 3
IT 318 Fluid Power ..................................................... 3
IT 324 Industrial Drawing ........................................... 3
IT 361 Computer Numerical Control ............................ 3
IT 387 Cooperative Education ....................................... 3
IT 420 Industrial Quality Control .................................. 3
IT 425 Advanced Manufacturing Methods ..................... 3
IT 426 Manufacturing Communication Systems ............. 3
IT 485 Flexible Manufacturing Systems ....................... 3
Select two of three courses .......................................... 6
ACC 130 Accounting for Non-Business Majors (3)
IT 427 Advanced Industrial Control (3)
IT 461 CAD/CAM NC Programming (3)

**Free electives** ...................................................... 3-4
Total ............................................................................ 124

**MANUFACTURING TECHNOLOGY CONCENTRATION**

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.

**Major in Manufacturing** ......................................... 60
IT 103 Introduction to Automation ............................... 3
IT 106 Industrial Computer Applications for Manufacturing ........................................... 3
IT 122 Engineering Graphics I .................................... 3
IT 123-124 Manufacturing Processes and Methods I-II ...... 6
IT 200 Industrial Electricity and Controls I ..................... 3
IT 203 Industrial Operation ......................................... 3
IT 223 Engineering Graphics II ................................... 3
IT 426 Manufacturing Communication Systems ............. 3
IT 485 Flexible Manufacturing Systems ....................... 3

Select two of three courses .......................................... 6
ACC 130 Accounting for Non-Business Majors (3)
IT 427 Advanced Industrial Control (3)
IT 461 CAD/CAM NC Programming (3)

**Free electives** ...................................................... 3-4
Total ............................................................................ 124
### PLASTICS CONCENTRATION

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 103 Introduction to Automation</td>
<td>3</td>
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<tr>
<td>IT 106 Industrial Computer Applications for Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>IT 122 Engineering Graphics I</td>
<td>3</td>
</tr>
<tr>
<td>IT 123-124 Manufacturing Processes and Methods I-II</td>
<td>6</td>
</tr>
<tr>
<td>IT 200 Industrial Electricity and Controls I</td>
<td>3</td>
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<tr>
<td>IT 202 Plastics</td>
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<td>IT 203 Industrial Operation</td>
<td>3</td>
</tr>
<tr>
<td>IT 218 Industrial Electricity and Controls II</td>
<td>3</td>
</tr>
<tr>
<td>IT 222 Engineering Graphics II</td>
<td>3</td>
</tr>
<tr>
<td>IT 306 Plastic Processing</td>
<td>3</td>
</tr>
<tr>
<td>IT 318 Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>IT 387 Cooperative Education</td>
<td>3</td>
</tr>
<tr>
<td>IT 409 Plastics Mold Design and Construction</td>
<td>3</td>
</tr>
<tr>
<td>IT 410 Plastics Product Design</td>
<td>3</td>
</tr>
<tr>
<td>IT 411 Plastics Fabricating andDecorating</td>
<td>3</td>
</tr>
<tr>
<td>IT 420 Industrial Quality Control</td>
<td>3</td>
</tr>
<tr>
<td>CHM 270-271 Organic Chemistry withlab</td>
<td>5</td>
</tr>
<tr>
<td>IDT 310 Polymers for Engineers and Technologists</td>
<td>3</td>
</tr>
<tr>
<td><strong>Restricted elective</strong></td>
<td>1</td>
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<td><strong>Free electives</strong></td>
<td>3-4</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>124</strong></td>
</tr>
</tbody>
</table>

### MANUFACTURING (TRANSFER) CONCENTRATION

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 coursework in basic studies, some specified science and mathematics courses, and additional adviser-approved manufacturing-related technical coursework at the upper level.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
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<td>IT 223 Engineering Graphics II</td>
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<td>IT 316 Manufacturing Tooling</td>
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<td>IT 318 Fluid Power</td>
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<td>IT 325 Applied Mechanics, Kinematics, and Design</td>
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<td>IT 361 Computer Numerical Control</td>
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<td>IT 387 Cooperative Education</td>
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<td>IT 420 Industrial Quality Control</td>
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<td>IT 421 Manufacturing Product and Process Analysis</td>
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<td>IT 425 Advanced Manufacturing Methods</td>
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<tr>
<td>IT 490 Manufacturing Technology Laboratory</td>
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<td>ACC 130 Accounting for Non-Business Majors</td>
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<td><strong>Restricted elective</strong></td>
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<td>9-10</td>
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<td><strong>Total</strong></td>
<td><strong>124</strong></td>
</tr>
</tbody>
</table>

Note: 12 hours from above must be from approved technical management courses.

### ACADEMIC MINORS

These minors are designed to provide a background in fundamental technical applications for students with majors outside the department who expect to work in industry. Employment opportunities are enhanced for persons with technical coursework.

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 Department of Industrial Technology. A minimum of six semester hours may be transferred from outside the department.

### CONSTRUCTION MANAGEMENT

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>IT 125 Introduction to Construction</td>
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<td>IT 201 Construction Systems</td>
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<tr>
<td>IT 228 Construction Drawing</td>
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<tr>
<td><strong>Restricted electives</strong></td>
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<tr>
<td>IT 229 Analysis of Commercial Prints</td>
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<td>IT 301 Planning and Scheduling</td>
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<td>IT 302 Contract Documents, Regulations, and Specifications</td>
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<td>IT 401 Construction Estimating and Bidding</td>
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<tr>
<td>IT 402 Construction Materials</td>
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</table>

### MANUFACTURING

<table>
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<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>IT 103 Introduction to Automation</td>
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<td>IT 122 Engineering Graphics I</td>
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<td>IT 123-124 Manufacturing Processes and Methods I-II</td>
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<td>IT 203 Industrial Operation</td>
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<td>IT 387 Cooperative Education</td>
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<td>IT 411 Plastics Fabricating andDecorating</td>
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<td>IDT 310 Polymers for Engineers and Technologists</td>
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</tr>
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<td><strong>Free electives</strong></td>
<td>3-4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</tr>
</tbody>
</table>

### PRE-PROFESSIONAL PROGRAMS

The Industrial Technology department is responsible for coordinating and advising students in two of the University's pre-professional offerings: pre-architecture and pre-engineering. 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 Eastern Michigan University to other universities. Students planning to transfer to four-year programs should not complete EMU's Basic Studies requirements.
PRE-ENGINEERING PROGRAM

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 they plan to transfer to for specific requirements. Courses taken may apply to other majors at Eastern Michigan University if the student chooses to remain on campus to complete a baccalaureate degree.

1. Required courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<td>English Composition</td>
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<tr>
<td>MTH 120-121</td>
<td>Calculus I-II</td>
<td>3, 8</td>
</tr>
<tr>
<td>MTH 122</td>
<td>Elementary Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MTH 223</td>
<td>Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>CHM 121-122</td>
<td>General Chemistry I with lab</td>
<td>4</td>
</tr>
<tr>
<td>PHY 223</td>
<td>Mechanics, Sound, and Heat</td>
<td>5</td>
</tr>
<tr>
<td>PHY 224</td>
<td>Electricity and Light</td>
<td>5</td>
</tr>
</tbody>
</table>

One literature course...

2. Recommended courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 137</td>
<td>Introduction to FORTRAN Programming or CSC 237 Computer Programming and Numeric Methods</td>
<td>3</td>
</tr>
<tr>
<td>CTA 121</td>
<td>Fundamentals of Speech</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201-202</td>
<td>Principles of Economics I-II</td>
<td>6</td>
</tr>
<tr>
<td>ENG 225</td>
<td>Intermediate English Composition</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Second literature course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>One humanities course</td>
<td>3</td>
</tr>
</tbody>
</table>

3. Optional courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 103</td>
<td>Introduction to Automation (3)</td>
<td>3</td>
</tr>
<tr>
<td>IT 122</td>
<td>Engineering Graphics I (3)</td>
<td>3</td>
</tr>
<tr>
<td>IT 223</td>
<td>Engineering Graphics II (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

PRE-ARCHITECTURE PROGRAM

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

1. Required courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 121</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>CTA 121</td>
<td>Fundamentals of Speech</td>
<td>3</td>
</tr>
<tr>
<td>MTH 120-121</td>
<td>Calculus I-II</td>
<td>3, 8</td>
</tr>
<tr>
<td>CSC 137</td>
<td>Introduction to FORTRAN Programming</td>
<td>3</td>
</tr>
<tr>
<td>CHM 119</td>
<td>Fundamentals of Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>PHY 223</td>
<td>Mechanics, Sound, and Heat</td>
<td>5</td>
</tr>
<tr>
<td>PHY 224</td>
<td>Electricity and Light</td>
<td>5</td>
</tr>
<tr>
<td>PLS 112</td>
<td>American Government</td>
<td>3</td>
</tr>
<tr>
<td>HIS 123</td>
<td>The United States to 1877</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201-202</td>
<td>Principles of Economics I-II</td>
<td>6</td>
</tr>
<tr>
<td>PHI 130</td>
<td>Introduction to Logic or approved alternative</td>
<td>3</td>
</tr>
<tr>
<td>FA 123</td>
<td>Drawing I, dance, music, or theatre arts course</td>
<td>3</td>
</tr>
<tr>
<td>FA 231</td>
<td>Three-Dimensional Design</td>
<td>3</td>
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</table>

Two literature courses...

2. Recommended course (course may not transfer)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 125</td>
<td>Introduction to Construction</td>
<td>2</td>
</tr>
</tbody>
</table>

INDUSTRIAL TECHNOLOGY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 101</td>
<td>Introduction to Industrial Drawing</td>
<td>3</td>
</tr>
</tbody>
</table>

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 an IT major.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 103</td>
<td>Introduction to Automation</td>
<td>3</td>
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</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 105</td>
<td>Computer Applications for Industry</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 106</td>
<td>Industrial Computer Applications for Manufacturing</td>
<td>3</td>
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</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 122</td>
<td>Engineering Graphics I</td>
<td>3</td>
</tr>
</tbody>
</table>

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: IT 101 or one year of high school drafting.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 123</td>
<td>Manufacturing Processes and Methods I</td>
<td>3</td>
</tr>
</tbody>
</table>

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.
Prereq: IT 123 and MTH 107.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 125</td>
<td>Introduction to Construction</td>
<td>2</td>
</tr>
</tbody>
</table>

Developing, planning, and scheduling of construction projects. Site development, material usage, specifications, estimating, and managing cost control are included.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 177/178/179</td>
<td>Special Topics</td>
<td>1/2/3</td>
</tr>
</tbody>
</table>

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.
Prereq: Department permission.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 200</td>
<td>Industrial Electricity and Controls I</td>
<td>3</td>
</tr>
</tbody>
</table>

The application of fundamental concepts and principles of electricity. Topics include direct and alternating current, resistance, reactance, basic electrical machines, and controls. The use of meters and test equipment is emphasized. Lecture and laboratory course.
Prereq: One and one-half years of high school algebra and trigonometry.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 201</td>
<td>Construction Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Structural Systems, associated non-structural components, and considerations appropriate to mechanical, electrical, plumbing, and support equipment. Lecture and laboratory course.
Prereq: IT 125 and IT 228.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 202</td>
<td>Plastics</td>
<td>3</td>
</tr>
</tbody>
</table>

A study of the plastics industry: material properties and identification, processing techniques, and application of design to product manufacture. Lecture and laboratory course.
Prereq: IT 123.
IT 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: IT 123.

IT 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: MTH 107.

IT 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.

IT 215 Machine Tool Metalworking.  3 hrs
Machine tools and metalworking processes including turning, drilling, shaping, milling, and grinding. Principles of tooling, precision measurement, identification of metals. Lecture and laboratory course.

IT 218 Industrial Electricity and Controls II.  3 hrs
The student of electrical principles related to power and control. Course content includes motors, instrumentation, and programmable logic controls. Lecture and laboratory course. Prereq: IT 200.

IT 219 Techniques of Energy Control.  3 hrs
An introduction to the use of tools, materials, machines, equipment, supplies, and mechanisms utilized in power mechanics for energy control. Lecture and laboratory course.

IT 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: MTH 107 and IT 122.

IT 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.

IT 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 material and take-off procedures. Preparation of field drawings using graph paper and sketching techniques. Lecture and laboratory course. Prereq: IT 228 or department permission.

IT 231 Industrial Computer Graphics.  3 hrs
A series of computer graphics programs illustrate graphics algorithms and terminology. Students write similar FORTRAN programs on graphics terminals using PLOT-10 subroutines. Topics include graphics, multiview drawings, rotations, databases, plotting and display techniques, and interactive programming. Lecture and laboratory course. Prereq: MTH 107 and CSC 137.

IT 240 Science, Technology, and People.  3 hrs
This course will help people to better understand the complementary relationship between science and technology in (a) creating technical devices, services and systems and (b) solving problems. Prereq: A basic studies approved physics or chemistry laboratory course.

IT 251 Material Analysis and Testing.  3 hrs
Study of the structure, characteristics, and working qualities of common industrial materials. Lecture and laboratory course.

IT 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.

IT 301 Planning and Scheduling.  3 hrs
The planning process of the construction industry. Various scheduling systems commonly used within the industry. Prereq: IT 105 and IT 201.

IT 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: IT 201 and LAW 293, or department permission.

IT 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 non-structural systems found in commercial buildings. Prereq: IT 201 and IT 228.

IT 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: IT 202.

IT 314 Integrated Circuits: Digital.  3 hrs

IT 316 Manufacturing Tooling.  3 hrs
A study of manufacturing tooling systems with a focus on basic types, components, applications, and principles of design. Tooling for metallic and non-metallic materials is included. Lecture and laboratory course. Prereq: MTH 107, IT 103, IT 124, IT 203, and IT 223.

IT 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.

IT 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: IT 223.

IT 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 IT 223.

IT 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 towards an IT major.

**Prerequisite:** IT 103 and IT 203.

**IT 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 code. Computer-assisted programming, APT, and CAD/CAM for 2-D machining is emphasized. Verification is accomplished by laboratory work.

**Prerequisite:** MTH 107, IT 106, IT 124, and IT 223.

**IT 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.

**Prerequisite:** Department permission.

**IT 387 Cooperative Education.** 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.

**Prerequisite:** Department permission.

**IT 401 Construction Estimating and Bidding.** 3 hrs
The principles and procedures for developing estimates, bids, and contracts for residential and commercial construction.

**Prerequisite:** IT 201 and IT 229.

**IT 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.

**Prerequisite:** IT 201.

**IT 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.

**Prerequisite:** IT 301, IT 401, and ACC 130.

**IT 406 Construction Law.** 2 hrs
Common basic legal problems associated with construction contracting. Current areas of concern and the significant implications are covered.

**Prerequisite:** IT 302 and LAW 293.

**IT 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.

**Prerequisite:** IT 306.

**IT 410 Plastics Product Design.** 3 hrs
The development of products through plastic materials selection and design includes the aesthetics of design and the selection of engineering properties. Lecture and laboratory course.

**Prerequisite:** IT 306.

**IT 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.

**Prerequisite:** IT 306.

**IT 414 Integrated Circuits: Linear.** 3 hrs
Fundamentals of discrete solid-state devices and linear integrated circuits. Concepts of instrumentation and control applications are included. Lecture and laboratory course.

**Prerequisite:** IT 200 or department permission.

**IT 415 Communication Circuits.** 3 hrs
Concepts and principles of electronics as applied to radio and television circuits. Concepts of instrumentation and control applications are required. Lecture and laboratory course.

**Prerequisite:** IT 200 or department permission.

**IT 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.

**Prerequisite:** IT 106, IT 203, IT 218, and IT 318.

**IT 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.

**Prerequisite:** MTH 118, MTH 119, and IT 203.

**IT 421 Manufacturing Product and Process Analysis.** 3 hrs
An advanced course in the analysis of manufacturing products and processes. Emphasis is placed on the identification and resolution of problems related to quality control and product reliability.

**Prerequisite:** MTH 119 and IT 420.

**IT 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, personal facilities are included.

**IT 425 Advanced Manufacturing Methods.** 3 hrs
The course emphasizes computerized methods of planning, material handling, machining cells, and inspection. Lecture and laboratory course.

**Prerequisite:** IT 103, IT 124, IT 203, and IT 218.

**IT 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.

**Prerequisite:** IT 106, IT 124, IT 203, and IT 218.

**IT 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.

**Prerequisite:** IT 218 and IT 318.

**IT 431 Interactive Industrial Computer Graphics.** 3 hrs
Students develop a 2-D interactive graphics FORTRAN program. The use of graphics hardware and the generating, modifying, and transforming of graphics entities and databases are included. Lecture and laboratory course.

**Prerequisite:** IT 231 and a course in FORTRAN programming.
IT 432 3-D Computer-Aided Design. 3 hrs
Using a graphics "toolbox" on a microcomputer, students develop a 3-D interactive BASIC CAD program. Hidden surface removal, 3-D transformation surface shading, and 3-D databases are required. Lecture and laboratory course.
Prereq: IT 431.

IT 433 Advanced Computer-Aided Design. 3 hrs
Advanced computer-aided design course that focuses on menu modification, AutoLISP programming, and data interchange. Lecture and laboratory course.
Prereq: IT 223 and IT 431.

IT 434 Microcomputer Circuits. 3 hrs
The microprocessor and its applications in the control of machines and industrial process. Lecture and laboratory course.
Prereq: IT 314 and a computer programming course.

IT 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 experiences to analyze heat transfer, beam deflection, and stress and strain problems by using several different software packages. Lecture and laboratory course.
Prereq: IT 325 or instructor permission.

IT 450 Fundamentals of Construction Project Management. 3 hrs
Students combine many previous concepts and skills into a single comprehensive project which includes estimating, scheduling, production control techniques, and documentation procedures. Lecture and laboratory course.
Prereq: IT 301, IT 302, IT 401, and MGT 384.

IT 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: IT 361.

IT 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.

IT 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 an manufacturing database, and hierarchical computer control. Lecture and laboratory course.
Prereq: IT 316, 1& 324; IT 361, IT 420, and IT 425.

IT 487 Cooperative Education. 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: IT 387 and department permission.

IT 490 Manufacturing Technology Laboratory. 3 hrs
This course is capstone for manufacturing technology majors and will focus on the development of the plans for a functioning manufacturing system. Student experiences will include the integration of a breadth of technical knowledge and skills as well as a significant degree of project management. Guided laboratory course.
Prereq: IT 316, IT 325, IT 420, IT 421, IT 425, and ENG 324.

IT 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.

IT 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

Paul D. Kuwik
Department Head
122 Sill Hall
487-1161

Professors: Taki Anagnostou, Stoil Dirlkov, Carol Haddad, Wayne Hanewicz, Frank Jones, Paul D. Kuwik, Demo Stavros, Ronald M. Westrum
Associate Professors: Gerald Lawver, John Preston
Assistant Professors: John Boyless, David Gore
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
Bilingual vocational teacher education
Communication technology
Facility management
Industrial distribution
Polymers and coatings technology

Minors:
-
Aviation flight technology
Graphic communication
Technology and society

Advising or additional information is available within the department. Consult with an advising coordinator listed below.

Advising Coordinators:
-
Aviation management technology: Timothy Doyle
Bilingual vocational teacher education: John Boyless
Communication technology: David Gore
Facility management technology: John Preston
Industrial distribution: Demo Stavros
Polymers and coatings technology: Taki Anagnostou
Aviation flight technology: Timothy Doyle
Graphic communication minor: David Gore
Technology and society minor: Ronald Westrum

ACADEMIC MAJORS

AVIATION MANAGEMENT TECHNOLOGY CURRICULUM

The aviation management technology curriculum is designed to prepare individuals for entry-level management and supervisory positions in the field of aviation technology. The program has a foundation of aviation-related and basic business coursework.

Area

Symbolics and communication (five courses) .................. 14-17
A course in written composition
A course in speech communication
An upper level course in written composition
A course in mathematical reasoning (MTH 109 Mathematics for Elementary Teachers II does not apply)

BILINGUAL VOCATIONAL TEACHER EDUCATION CURRICULUM

Students wanting to become vocational teachers in high schools or vocational technical centers can participate in the bilingual vocational teacher education program. The program is a four-year curriculum in basic studies, education, practical arts, and an occupational specialty that leads to a bachelor’s degree. Graduates also receive a Michigan temporary vocational authorization that enables them to teach in their occupational specialty. Two years of work experience in an occupational specialty are needed for the program. Financial aid is available to students in the program.

Two curricula are offered: a Bachelor of Science in industrial/vocational education and a Bachelor of Business Education.

BILINGUAL INDUSTRIAL-VOCATIONAL TEACHER EDUCATION

Area

Symbolics and communication .................. 15
A course in written communication
A course in speech communication
A course in one of the following areas:
### BILINGUAL OFFICE AND MARKETING TEACHER EDUCATION CURRICULUM

#### BILINGUAL OFFICE TEACHER EDUCATION

<table>
<thead>
<tr>
<th>Area</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbolics and communication</td>
<td>15</td>
</tr>
<tr>
<td>A course in written communication</td>
<td></td>
</tr>
<tr>
<td>A course in speech communication</td>
<td></td>
</tr>
<tr>
<td>A course in one of the following areas:</td>
<td></td>
</tr>
<tr>
<td>an upper-level course in written composition</td>
<td></td>
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<tr>
<td>an upper-level course in speech communication</td>
<td></td>
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<tr>
<td>a course in foreign language composition</td>
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<tr>
<td>A course in mathematical reasoning</td>
<td></td>
</tr>
<tr>
<td>IDT 201 Microcomputer Applications in Technology</td>
<td>3</td>
</tr>
<tr>
<td>Science and technology</td>
<td>9</td>
</tr>
<tr>
<td>A course in physical science</td>
<td></td>
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<tr>
<td>A course in life science</td>
<td></td>
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<tr>
<td>IDT 150 Understanding Technology</td>
<td>3</td>
</tr>
<tr>
<td>Social science</td>
<td>12</td>
</tr>
<tr>
<td>A course in U.S. government</td>
<td></td>
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<tr>
<td>A course in history</td>
<td></td>
</tr>
<tr>
<td>ECO 201-202 Principles of Economics I-II</td>
<td>6</td>
</tr>
<tr>
<td>Arts and humanities</td>
<td>12</td>
</tr>
<tr>
<td>A course in literature or an intermediate or advanced foreign language literature course</td>
<td></td>
</tr>
<tr>
<td>An approved course in cross-cultural or international studies</td>
<td></td>
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<tr>
<td>A course in philosophy or religion</td>
<td></td>
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<tr>
<td>A course in art, dance, music, or theatre arts</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>30</td>
</tr>
<tr>
<td>EDP 322 Human Development and Learning</td>
<td>4</td>
</tr>
<tr>
<td>RDG 311 Teaching in the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>SFD 328 Social Aspects of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>SGN 251 Education of Exceptional Children</td>
<td>2</td>
</tr>
<tr>
<td>EDP 340 Introduction to Assessment and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>Student Teaching Sequence*</td>
<td></td>
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<tr>
<td>IE 460 Practicum in Technology and Industrial-Vocational Education</td>
<td>2</td>
</tr>
<tr>
<td>IE 461 The Teaching of Technology and Industrial-Vocational Education</td>
<td>2</td>
</tr>
<tr>
<td>EDU-492 Student Teaching</td>
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<td>Practical arts**</td>
<td>16</td>
</tr>
<tr>
<td>IE 246 Specialty Technology in Industrial-Vocational Education</td>
<td>2</td>
</tr>
<tr>
<td>IE 250 Foundations of Technology and Industrial-Vocational Education</td>
<td>3</td>
</tr>
<tr>
<td>IE 350 Curriculum in Technology and Industrial-Vocational Education</td>
<td>3</td>
</tr>
<tr>
<td>IE 452 Principles of Vocational-Technical Education</td>
<td>3</td>
</tr>
<tr>
<td>IDT 478 Special Topics: Teaching Methods in Bilingual Vocational Education</td>
<td>2</td>
</tr>
<tr>
<td>IDT 479 Special Topics: Seminar in Bilingual Vocational Education</td>
<td>3</td>
</tr>
<tr>
<td>Occupational specialty***</td>
<td>35</td>
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<tr>
<td>Physical education</td>
<td>2</td>
</tr>
<tr>
<td>Physical education activity or military science courses</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>135-140</td>
</tr>
</tbody>
</table>

**Note:** Satisfactory completion of this program will result in the Bachelor of Science degree and issuing of the Michigan temporary vocational authorization for teaching in occupational specialty, grades 9-12.  
*Must hold 2.25 overall at EMU and 2.5 in major before enrolling in student teaching sequence.

**The completion of this 50-hour curriculum satisfies all requirements for the major and minor areas of study.**

**The occupational specialty must be in an accredited NES title area and must be accompanied by two years (4,000 hours) of recent and relevant work experience. Academic credit towards this requirement can be granted for technical preparation in an occupation or for completion of appropriate examinations (e.g., the Michigan Occupational Competency Assessment Center test).**

#### Business education core

- BE 100 Contemporary Business ........................................ 3
- BE 123 Word Processing/Keyboarding Applications ............... 2
- *BE 201 Microcomputers for Business Applications ............. 3
- BE 224 Computer-based Business Mathematics.................... 3
- ACC 240-241 Principles of Accounting I-II .......................... 6
- BE 250 Personal Finance ........................................... 3
- LAW 293 Legal Environment of Business ............................ 3
- MKT 360 Principles of Marketing .................................... 3
- BE 395 Office Administration ....................................... 3
- BE 396 Records Administration ..................................... 3
- IDT 478 Special Topics: Teaching Methods in Bilingual Vocational Education ........................................ 2
- IDT 479 Special Topics: Seminar in Bilingual Vocational Education ........................................ 3

#### Business education/office education major

1. Required course ................................................................ 3
2. Required option ................................................................ 15

Choose one option from the following:

**Option I: Accounting**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACC 340-341</td>
<td>Intermediate Accounting I-II</td>
<td>6</td>
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<tr>
<td>ACC 342</td>
<td>Managerial Cost Accounting</td>
<td>3</td>
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<tr>
<td>ACC 344</td>
<td>Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 346</td>
<td>Government Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option II: Data processing**
IS 219 File Processing and COBOL Programming.......... 3
DS 265 Business Statistics I .................................. 3
**Students electing business education/accounting or data processing should take a three hour restricted elective instead of BE 422 Office Systems
DS 317 System Simulation .................................. 3
IS 413 Evaluation and Application of Computer Hardware .................................................. 3
IS 417 Systems Analysis and Design ....................... 3
Option III: Shorthand
BE 220 Word/Information Processing Operations ....... 3
BE 222 Transcription Applications and Technology .... 3
BE 225 Notetaking Skills for Professionals .............. 2
BE 325 Advanced Notetaking and Transcription for Professionals .................................. 2
BE 495 Office Automation .................................. 3
Option IV: Word processing
BE 210 Concepts of Word/Information Processing ........ 3
BE 220 Word/Information Processing Operations ....... 3
BE 222 Transcription Applications and Technology .... 3
BE 310 Word/Information Processing Administration .... 3
BE 495 Office Automation .................................. 3
Business Education Restricted Electives
BE 201 Microcomputers for Business Applications .... 3
BE 205 Women in Business .................................. 3
BE 210 Concepts of Word/Information Processing ....... 3
BE 211 Introduction to Paralegalism and Legal Terminology .................................. 3
IS 219 File Processing and COBOL Programming........ 3
BE 220 Word/Information Processing Operations ....... 3
BE 222 Transcription Applications and Technology .... 3
BE 225 Notetaking Skills for Professionals .............. 2
BE 310 Word/Information Processing Administration .... 3
BE 325 Advanced Notetaking and Transcription for Professionals .................................. 2
MKT 374 Business to Business Marketing ................ 3
BE 387 Cooperative Education .............................. 3
LAW 393 Law of Business Enterprises ................. 3
BE 411 Civil Litigation, Investigation, and Procedure .... 3
BE 412 Court Rules, Forms, and Legal Drafting ......... 3
BE 422 Office Systems .................................. 3
BE 452 Principles of Vocational-Technical Education .... 3
BE 495 Office Automation .................................. 3
BE 496 Records Administration Using Database ........ 3
BE 487 Cooperative Education .............................. 3
BE 497/498/499 Independent Study ....................... 1-3
Physical education and health
Physical education activity courses ...................... 2
(Any two courses in military science may be applied)
Electives ....................................................... 0-3
Total ........................................................................ 133

*Students electing the business education/data processing option must take IS 215 End-User Computing in place of BE 201, MTH 118, and MTH 119.
Note: Satisfactory completion of this program will result in the Bachelor of Science degree and issuing of the Michigan temporary vocational authorization for teaching in occupational specialty, grades 9-12.
Must hold 2.5 overall at EMU and 2.5 in major before enrolling in student teaching sequence.
**The completion of this 50-hour curriculum satisfies all requirements for the major and minor areas of study.
***The occupational specialty must be in an accredited N.E.S. title area and must be accompanied by two years (4,000 hours) of recent and relevant work experience. Academic credit towards this requirement can be granted for technical preparation in an occupation or for completion of appropriate examinations (e.g. the Michigan Occupational Competency Assessment Center test).

BILINGUAL MARKETING TEACHER EDUCATION

Area ........................................................................ 15
Symbolics and communication ................................ 15
A course in written communication
A course in speech communication
A course in one of the following areas:
an upper-level course in written composition
an upper-level course in speech communication
a course in foreign language composition
A course in mathematical reasoning
IDT 201 Microcomputer Applications in Technology ... 3
Science and technology ........................................ 9
A course in physical science
A course in life science
IDT 150 Understanding Technology ...................... 3
Social science .................................................. 12
A course in U.S. government
A course in history
ECO 201-202 Principles of Economics I-II ............ 6
Arts and humanities ........................................... 12
A course in literature or an intermediate or advanced foreign language literature course
An approved course in cross-cultural or international studies
A course in philosophy or religion
A course in art, dance, music, or theatre arts
Education ..................................................... 28
BE 200 Principles of Marketing and Business Education ... 3
EDP 322 Human Development and Learning ........... 4
SFD 328 Social Aspects of Teaching ......................... 3
EDP 340 Introduction to Assessment and Evaluation .... 3
RDG 311 Teaching Reading in the Secondary School .......... 3
SFM 300 Exceptional Children in the Regular Classroom ... 1
EDU 492 Student Teaching .................................. 12
Business methods courses ................................... 4
BE 364 Methods of Teaching General Business Subjects and Methods .................................. 2
Courses appropriate to major:
BE 365 Methods of Teaching Office Education or BE 366 Methods of Teaching Marketing Education .... 2
Practical arts .................................................. 50
Business education core ..................................... 15
BE 100 Contemporary Business ......................... 3
ACC 240-241 Principles of Accounting I-II ............ 6
LAW 293 Legal Environment of Business .............. 3
MKT 360 Principles of Marketing ......................... 3
Major in marketing education ................................ 24
Technical content courses
MKT 261 Contemporary Selling ............................. 3
MKT 363 Retailing ........................................... 3
MGT 386 Organizational Behavior and Theory .......... 3
MKT 365 Buyer Behavior .................................... 3
Select two of the following courses ......................... 6
Professional marketing education courses
BE 367 Curriculum in Marketing Education ............ 2
BE 368 Management of Marketing Education Programs ... 2
BE 461 Projects and Simulations in Marketing Education ... 2
IDT 478 Special Topics: Teaching Methods in Bilingual Vocational Education .... 2
IDT 479 Special Topics: Seminar in Bilingual Vocational Education ................................. 3

Restricted Electives ........................................................................................................... 11
BE 119 Keyboarding for Computers; BE 123 Word Processing/Keyboarding Applications; BE 201 Microcomputers for Business Applications; BE 224 Computer-based Business Mathematics; BE 250 Personal Finance; BE 387 Cooperative Education; BE 487 Cooperative Education; BE 497, 498, 499 Independent Study
IE 452 Principles of Vocational-Technical Education

Physical education and health ............................................................................................ 2
Physical education activity courses .................................................................................... 2
(Any two courses in military science may be applied.)
Electives .............................................................................................................................. 0-3
Total .................................................................................................................................. 129-133

COMMUNICATION TECHNOLOGY CURRICULUM

Communication technology is a joint program offered by the Interdisciplinary Technology department and the Communication and Theatre Arts department. 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.

Area Sem hours
Symbolics and communication ....................................................................................... 15
A course in written communication
A course in speech communication
ENG 324 Principles of Technical Communication or CTA 227 Introduction to Radio, Film, and Television Production and Directing
Intercultural Communication or any course in foreign language composition .............. 3
MTH 108 Mathematical Analysis for Social Sciences I .................................................... 3
IDT 201 Microcomputer Applications in Technology or IS 215 End-User Computing .... 3

Science and technology .................................................................................................... 7-10
A course in physical science
PSY 101 General Psychology ............................................................................................. 3
IDT 150 Understanding Technology ............................................................................... 3

Social science .................................................................................................................... 8-12
A course in U.S. government
A course in history
ECO 201 Principles of Economics I ..................................................................................... 3
ECO 202 Principles of Economics II, or a course in cross-cultural or international studies .... 3

Arts and humanities .......................................................................................................... 8-12
A course in literature
One of the following:
    a second course in literature
    an intermediate or advanced foreign language literature course
    a course in oral interpretation
    a course in cross-cultural or international studies
    a course in philosophy or religion
    a course in art, dance, music, or theatre arts
Academic major in communication technology ................................................................. 62
Media production
CTA 130 Introduction to Telecommunications and Film .................................................. 3
CTA 141 Introduction to Radio-TV-Film Production ....................................................... 3
CTA 331 Fundamentals of Radio Production and Direction or CTA 332 Fundamentals of Television Production and Direction .......................... 3
Transmission systems
IT 200 Industrial Electricity and Controls I ................................................................. 3
IDT 305 Communication Transmission Systems ......................................................... 3

Computer technology
CSC 238 Computer Science II ......................................................................................... 3
CSC 239 Assembly and Machine Language Programming ............................................. 3
CSC 338 Computer Organization ..................................................................................... 3
CSC 435 Introduction to Microprocessors ....................................................................... 3
Communication theory and practice
CTA 227 Interpersonal Communication ........................................................................ 3
CTA 354 Organizational Communication ....................................................................... 3
Business and Investment skills
MKT 360 Principles of Marketing .................................................................................... 3
PSY 205 Quantitative Methods in Psychology ............................................................... 3

Management skills
ACC 240 Principles of Accounting ................................................................................ 3
MGT 202 Business Communications ............................................................................. 3

Industrial technology
IDT 121 Graphic Communication .................................................................................. 3
IDT 231 Introduction to Computer Graphic Systems ..................................................... 3
IDT 387 Cooperative Education ....................................................................................... 3
IDT 409 Emerging Technologies in Storage and Retrieval ................................................ 3
IDT 425 Communication Technology and Social Change ............................................ 3
IDT 470 Senior Seminar in Communication Technology .................................................. 2

Physical education and health
Physical education activity courses ................................................................................... 2
(Any two courses in military science may be applied.)
Electives ............................................................................................................................. 11-22
Total ................................................................................................................................ 124

FACILITY MANAGEMENT CURRICULUM

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. This major is currently undergoing revision; changes will be announced by the department.

Area Sem hours
Symbolics and communication ....................................................................................... 15
A course in written composition ......................................................................................... 3
A course in speech communication ................................................................................... 3
An upper-level course in written composition ................................................................ 3
A course in mathematical reasoning ................................................................................. 3
IDT 201 Microcomputer Applications in Technology ..................................................... 3
Science and technology ................................................................................................... 11
A course in physical science ............................................................................................. 4
A course in life science (biology or psychology) .............................................................. 4
IDT 150 Understanding Technology ................................................................................. 3
Social science .................................................................................................................... 12
See basic studies requirements, page 28
Arts and humanities ........................................................................................................ 12
See basic studies requirements, page 29
Physical education .......................................................................................................... 2
Any two courses in Military Science may be applied.
Cross-cultural or international studies
See basic studies requirements, page 30
Major in facility management ......................................................................................... 54
IDE 111 Human Factors and Special Needs .................................................................. 3
IT 201 Construction Systems ......................................................................................... 3
IDT 202 Introduction to Facility Management ............................................................... 3
INTERDISCIPLINARY TECHNOLOGY 339

IT 228 Construction Drawing ........................................... 3
IT 229 Analysis of Commercial Prints ......................... 3
IDT 231 Operations and Maintenance ..................... 3
LAW 293 Legal Environment of Business .................. 3
IT 301 Planning and Scheduling ......................... 3
IT 302 Contract Documents, Regulations, and Specifications .......... 3
IDE 313 Space Planning and Specifications ............... 3
IDE 364 Facility Management ........................................ 3
IDT/HEC/IT 387 Cooperative Education .................... 3
IT 401 Construction Estimating and Bidding ........... 3
IDT 416 Managing Utilities, Lighting Systems, and Code Compliance .......... 3
IDT 417 Computer-Aided Facility Management ............ 3
IT 418 Building Automation Systems ..................... 3
IDT 432 Senior Seminar in Facility Management ........ 3
IDE 469 Strategic Planning and Research for Facility Management 3

Minor in management ............................................ 21
Required ............................................. ....... 12
RES 210 Real Estate Principles and Practices ........... 3
ACC 240 Principles of Accounting I ....................... 3
MKT 360 Principles of Marketing ............................ 3
MGT 386 Organizational Behavior and Theory ........... 3
Recommended courses (See management minor) .......... 
MGT 384 Human Resource Management ................... 3
MGT 483 Staffing Organizations ............................ 3
MGT 484 Management-Union Relations .................... 3
Total .................................................. 127

INDUSTRIAL DISTRIBUTION CURRICULUM

The industrial distribution program is designed to provide the background necessary for graduates to find employment in wholesale sales, sales management, and operation management with suppliers of durable and non-durable goods and with wholesale distributors who purchase, warehouse, sell, and distribute these goods.

Students completing this curriculum have met the major and minor requirements for graduation.

Area Sem hours
Symbolics and communication ........................................... 14-15
ENG 121 English Composition ......................................... 3
CTA 121/124 Fundamentals of Speech ............................ 2-3
An upper level course in speech communication ............. 3
MTH 118 Mathematical Analysis for Social Sciences I 3
or MTH 270 Elementary Statistics ............................ 3
IDT 201 Microcomputer Applications in Technology .......... 3
Science and technology ............................................ 10-11
Physical science elective .......................................... 4
Life science elective ............................................. 3
IDT 150 Understanding Technology .......................... 3
Social science ................................................. 12
PLS 112 American Government ..................................... 3
A course in History ............................................. 3
ECO 201-202 Principles of Economics I-II .................. 6
Arts and humanities .............................................. 12
A course in literature ............................................. 3
A course in cross-cultural or international studies .......... 3
A course in philosophy or religion ................................ 3
A course in art, dance, music, or theatre arts .............. 3
Major requirements ............................................. 45
IDT 240 Introduction to Industrial Distribution ........... 3
IDT 340 The Industrial Climate and its Effects Upon Distribution .......... 3
IDT 387 Cooperative Education .................................. 3
IDT 391 Wholesale Account Development .................... 3
IDT 440 Industrial Distribution Operations ................. 3
IDT 444 Industrial Distribution ................................. 3
Concentrations ................................................. 27

Students may select concentrations from many subject areas, including industrial technology, management, marketing, or other with adviser approval. Note: No more than 30 semester hours may be taken by non-business majors.

Minor ............................................. 21

Industrial distribution majors may take a minor. Most majors select marketing as their minor. However, other minors are available with adviser approval.

Marketing minor
ACC 240 Principles of Accounting I ............................ 3
MKT 360 Principles of Marketing .................................. 3
MGT 386 Organizational Behavior and Theory ........... 3
Four classes from ............................................. 3

Physical education and health ........................................ 2
Two semester hours of military science may be substituted for physical education.

General electives ................................................. 7
Total .................................................. 124

POLYMERS AND COATINGS TECHNOLOGY CURRICULUM

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.

Area Sem hours
Symbolics and communication ........................................... 15
ENG 121 English Composition ......................................... 3
CTA 121 Fundamentals of Speech ................................... 2
ENG 324 Principles of Technical Communication ............ 3
MTH 120 Calculus I ................................................. 4
IDT 201 Microcomputer Applications in Technology .......... 3
Science and technology ............................................. 13
CHM 121-122 General Chemistry I with lab .................. 5
BIO 105 Biology and the Human Species ....................... 4
PHY 221 Mechanics, Sound, and Heat ........................... 4
Social science ................................................. 12
PLS 112 American Government ..................................... 3
A course in history ............................................. 3
ECO 201-202 Principles of Economics I-II .................. 6
Arts and humanities .............................................. 12
A course in literature ............................................. 3
A second course in literature .................................... 3
A course in philosophy or religion .................... 3
A course in art, dance, music, or theatre arts .............. 3
Science and mathematics ....................................... 16
CHM 123-124 General Chemistry II with lab .................. 5
MTH 105 College Algebra ......................................... 3
MTH 107 Plane Trigonometry .................................... 2
PHY 222 Electricity and Light .................................... 4
CHM 381 Instrumentation for Chemical Technology .......... 2
Academic major in polymers and coatings technology

Required courses ............................................................ 44
CHM 261 Introduction to Physical Chemistry ....................... 3
CHM 281 Quantitative Analysis ....................................... 4
IDT 310 Polymers for Engineers and Technologists ............. 3
CHM 371-373 Organic Chemistry I-II with lab ................. 8
IDT 387 Cooperative Education ........................................ 3
IDT 400 Polymers and Coatings Technology I ................. 3
IDT 401 Polymers and Coatings Technology II ................. 3
IDT 402 Polymers and Coatings Technology III ............... 3
IDT 403 Polymers and Coatings Technology IV ............... 3
IDT 405 Coating Processes I ........................................ 3
IDT 460 Advanced Coatings Topics ................................ 3
IDT 479 Special Topics: Statistical Process Control in Coatings ................. 3
Electives .............................................................................. 10-11
Choose 10-11 credits from the following:
CHM 241 Materials Science, CHM 340 Introduction to Industrial Chemistry, CHM 415 Environmental Chemistry, CHM 478 Special Topics, IDT 487 Cooperative Education

Physical education and health ........................................ 2
Physical education activity courses
(any two courses in military science may be applied)

Electives .............................................................................. 5-6
Total .......................................................................................... 124

ACADEMIC MINORS

AVIATION FLIGHT TECHNOLOGY MINOR

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.

Sem hours

Academic minor in aviation flight technology ........................................ 24
1. Required courses ............................................................ 21
IDT 170 Aviation Ground Instruction ....................................... 3
IDT 251 Basic Flight .............................................................. 2
IDT 261 Basic Flight II ..................................................... 2
IDT 271 Basic Flight III ..................................................... 2
IDT 341 Advanced Ground Instruction .................................. 3
IDT 351 Advanced Flight ..................................................... 2
IDT 361 Advanced Flight II .................................................. 2
IDT 371 Advanced Flight III .................................................. 2
IDT 320 Aviation Safety, Accident Investigation, and Training ............... 3
2. Elective .............................................................................. 3
Select one course from the following:
IDT 110 Aircraft Maintenance I (3)
IDT 120 Flight Operations I (3)
IDT 303 Aviation Law and Insurance (3)
IDT 315 Airport Management (3)

GRAPHIC COMMUNICATION MINOR

This minor is designed to provide technical communication skills to majors in fields such as graphic design and journalism. The electives in the minor are diverse and extensive enough to allow for individual flexibility.

Minors in graphic communication .............................................. 23
1. Required courses ............................................................ 11
IDT 104 Introduction to Communication Technology ............... 2
IDT 121 Graphic Communication ......................................... 3
IDT 204 Photographic Communication ................................. 3
IDT 207 Photographic Reproduction ...................................... 3
2. Electives .............................................................................. 12
IDT 201 Microcomputer Applications in Technology (3)
IDT 304 Advanced Photographic Communication (3)
IDT 318 Graphic Arts Workshop (3)
IDT 404 Photo Communication Workshop (3)
IT 231 Industrial Computer Graphics (3)
FA 165 Graphic Design for Non-Majors (3)

Restricted electives selected from journalism, marketing, or management

TECHNOLOGY AND SOCIETY MINOR

This minor is interdisciplinary in nature and provides students pursuing majors in fields such as graphic design and journalism. The minor provides contributions from several departments including biology, engineering, computer science, economics, and history.

Sem hours

Minor in technology and society .............................................. 24-26
1. Required courses ............................................................ 15
CSC 136 Computers for the Non-Specialist or CSC 137 Introduction to FORTRAN Programming ..................................... 3
IDT 150 Understanding Technology ....................................... 3
HIS 290 Introduction to the History of Technology ................. 3
IDT 308 Seminar in Technological Impacts ............................. 3
IDT 495 Technology, Values, and the Future .......................... 3
2. Restricted Electives ............................................................ 9
Choose three courses (with at least one course from each subgroup, A and B) from the following:
Subgroup A:
SOC 334 Population
Subgroup B:
CTA 446 Contemporary Problems in Telecommunications
ECO 386 Technology and Economic Growth
GEO 100 Future Worlds, GEO 235 Economic Geography, GES 495 Environmental Assessment and Planning
IDT 420 Women and Technology
IDT 201 Microcomputer Applications in Technology
PHI 380 Philosophy of Science
PLS 381 Public Policy Analysis, PLS 382 Politics and the 21st Century
PSY 350 Environmental Psychology, PSY 351 Industrial Psychology
SOC/ANT 336 Social and Cultural Change, ANT 378 Special Topics: Contemporary Issues in Developing and Modern Technological Societies, SOC 307 Industrial Sociology

INTERDISCIPLINARY TECHNOLOGY COURSES

IDT 100 Introduction to General Aviation. 1 hr
The role of general aviation in the total framework of air transportation; the general structure of the industry including regulatory
agencies, ground service equipment, and aircraft refueling. Lecture: one hour per week.

**IDT 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.

**IDT 110 Aircraft Maintenance I.** 3 hrs
The functions and roles of maintenance personnel in an aviation maintenance organization structure. Lecture: three hours per week.

**IDT 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.

**IDT 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.

**IDT 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.

**IDT 170 Aviation Ground Instruction.** 3 hrs
Basic flight training ground instruction and practice in aircraft theory, aerial navigation, civil air regulations, meteorology, and radio. Directed toward preparation for the private pilot written examination.

**IDT 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.

**IDT 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; BE 119 is suggested.

**IDT 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.

**IDT 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.

**IDT 205 Photo-Technology.** 2 hrs
The applications of light sensitive materials used in industry to include photo-drafting, photofabrication. Lecture: one hour per week. Laboratory: two h6urs per week.

**Prereq:** IDT 121 and a chemistry course.

**IDT 207 Photographic Reproduction.** 3 hrs
Study and laboratory work in photomechanics, stripping, and plate-making as applied to offset presswork. Includes the preparation of layout materials for printing. Lecture: one hour per week. Laboratory: two hours per week.

**Prereq:** IDT 104 or IDT 121.

**IDT 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:** IDT 110.

**IDT 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.

**IDT 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:** IDT 120.

**IDT 231 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:** IDT 202, IT 229.

**IDT 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.

**IDT 240 Introduction to Industrial Distribution.** 3 hrs
Definitions, history, types of distribution, range of products, lines of distribution, function of and services provided by distributors; employment and professional advancement opportunities with industrial distributors and suppliers.

**IDT 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.

**IDT 251 Basic Flight.** 2 hrs
The student will receive dual instruction in pre-flight procedures, ground reference maneuvers, take-off, and landings, power-off and power-on stalls, local flight operations, and precision flight maneuvers. Remaining hours will be solo flight.

**Prereq:** IDT Student Pilot Certificate and Class II or III Medical.

**IDT 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.

**IDT 261 Basic Flight II.** 2 hrs
The student will receive dual instruction and solo practice in extended cross-country flight operations, flight proficiency maneuvers,
vers, 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: IDT 251.

IDT 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: IDT 261.

IDT 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.

IDT 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.

IDT 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: IDT 204.

IDT 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.

IDT 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.

IDT 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, theology, polymer fabrication techniques.

IDT 312 Heating, Ventilating, and Air Conditioning. 4 hrs
Commercial systems will be studied with an emphasis on which energy saving strategies are appropriate to each and how to calculate potential savings.

Prereq: II 125, II 228.

IDT 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.

IDT 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.

IDT 318 Graphic Arts Workshop. 3 hrs
Selected topics in the field of graphic arts technology, such as composition, press work, screen process, and advanced photo-mechanics. May be repeated for additional credit.

Prereq: IDT 207 or department permission.

IDT 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: IDT 170.

IDT 340 The Industrial Climate and Its Effects Upon Distribution. 3 hrs
Historical development and current factors influencing industrial products and their usage, including financial and geographical factors, machinery, power, raw materials, markets and labor, which have direct influence upon the development, distribution, and use of industrial goods. Specific studies of representative industries including steel and other metals, machine tool, automobile, and transportation.

IDT 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: IDT 170.

IDT 350 Wire Technology II. 3 hrs
An intermediate course designed to study contemporary concepts and practices of wire manufacturing.

Prereq: IDT 250 or approval of instructor.

IDT 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: IDT 271.

IDT 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: IDT 351.

IDT 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: IDT 361.

IDT 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.

IDT 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.

IDT 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 distinctions; the role of public safety agencies, the community's involvement in establishing that role, police-commu-
IDT 387 Cooperative Education. 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 Department of Interdisciplinary Technology. Regular employee benefits may be received during the employment period.
Prereq: Department permission.

IDT 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.

IDT 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, alkyls, oils, epoxies, epoxyesters, aminoplasts, urethanes, phenolics, hydrocarbons, celluloses.
Prereq: CHM 270, 271.

IDT 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, alkyl, epoxyester, melamine formaldehyde, and urethane polymers with extensive use of physical techniques such as G.I.R.T., G.P., and calorimetry.
Coreq: IDT 400.

IDT 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.
Coreq: IDT 400.

IDT 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, epoxy primer, two package urethane, acrylic latex, and E.D. primer).
Coreq: IDT 402.

IDT 404 Photo Communication Workshop. 3 hrs
Selected topics in photo communications, such as commercial and industrial photography, photo journalism, sensitometry and photography, photo journalism, and sensitometry and photo processing. The class schedule describes the specific topic being offered during a given semester. May be repeated for additional credit.
Prereq: IDT 304.

IDT 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: IDT 310 or IDT 400, or department permission.

IDT 406 Coatings Processes I Laboratory. 3 hrs
Hands-on experience in industrial coating processes. Substrate preparation, coatings application, and industrial coating systems design and operational control.
Coreq: IDT 405.

IDT 407 Coating Processes II. 3 hrs
Processes and equipment for coatings application, economic analysis of coating operations, paint defects, and line design for productivity and energy conservation.
Prereq: IDT 405 or department permission.

IDT 409 Emerging Technologies in Storage and Retrieval. 3 hrs
Conventional as well as emerging technologies of information storage and retrieval. Lecture and laboratory.

IDT 410 Mechanical and Physical Properties of Polymers. 3 hrs
Detailed study of the mechanical and physical properties of polymers from both theoretical and practical viewpoints. Polymer morphology, transitions and relaxations in polymers, mechanical properties of high polymers, theology and their relationship to polymer fabrication processes.
Prereq: IDT 310 or department permission.

IDT 411 Mechanical and Physical Properties of Polymers Laboratory. 1 hr
A laboratory course designed to supplement lecture material from IDT 410. Hands-on exposure to a variety of experimental techniques commonly encountered in the polymers industry; glass transitions in polymers, melt-flow characteristics, measurement of Newtonian and non-Newtonian flow, mechanical behavior of polymers, and plastic deformation.
Coreq: IDT 410.

IDT 413 Computers in Aviation. 3 hrs
Applications of computers in aviation at various levels of hardware and software complexity. Basic programs appropriate to aviation operations and maintenance control.
Prereq: IS 215.

IDT 414 Rubber Technology II. 2 hrs
Special topics related to rubber compounding, processing and testing, and problems in specific applications of rubber products. Guest lecturers, students and staff will cover topics.
Prereq: IDT 214 or department permission.

IDT 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: IDT 201, IDT 202, IDT 231.

IDT 417 Computer Aided Faciltiy Management. 3 hrs
This course teaches the student how to use software which is dedicated to managing facilities.
Prereq: IDT 201, IDT 202, IDT 231, IT 229, IDE 313.

IDT 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, sprinklers.
Prereq: IDT 201, IDT 231.
IDT 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 technological society or technology-based professions; explore women's roles in several specific technology professions.

IDT 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.

IDT 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 coursework will be stressed.
Prereq: Department permission.

IDT 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.

IDT 430 Senior Seminar in Energy Management Technology. 3 hrs
Projects coordinated with local firms to give the student practical experience. Selected topics not covered in previous courses.

IDT 431 Aviation Facilities. 3 hrs
The design of new aviation facilities and the retrofit of existing facilities to meet short and long term requirements of aviation operations.

IDT 432 Senior Seminar in Facility Management. 3 hrs
This course is a capstone experience which considers and integrates special problems in facility management.
Prereq: IDE 364, IDT 416, senior standing, completed or concurrent co-op.

IDT 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 own 35mm camera, safety shoes, gloves, and hard hat.
Prereq: CHM 119 or PHY 221.

IDT 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: CHM 119 or PHY 221.

IDT 435 Incident Command. 3 hrs
The study of complex fire situations, including analysis of pre-fire 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: PLS 450 or department permission.

IDT 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.

IDT 437 Aviation Cabin Safety. 2 hrs
The major elements of aircraft cabin safety, including the requirements for air carrier operations, will be presented in accordance with the requirements of the Federal Aviation Regulations. Topics will include emergency equipment, accident reviews, human factors, crew assignments and procedures, decompression, fire fighting, ditching, land and water evacuations, hijacking and unusual situations, in-flight medical, passenger handling, safety briefings, leadership, and emergency commands.
Prereq: IDT 320 and IDT 422, or department permission.

IDT 440 Industrial Distribution Operations. 3 hrs
Industrial distributors' operations, concepts of value added, organizational structure, time and space use, systems contracting, profitability, efficiency, distributor-supplier relations, and trends in industrial distribution. Case studies and industrial speakers.
Prereq: IDT 240, junior standing, and approval of instructor.

IDT 444 Industrial Distribution. 3 hrs
Seminar approach to study of problems of industrial distribution with assistance of representative from industrial distributor organizations in the geographical area.
Prereq: IDT 440, senior standing.

IDT 450 Advanced Coatings Topics III. 3 hrs
Advanced wire technology; in-depth study of wire in manufactured products.
Prereq: IDT 350 or permission of instructor.

IDT 460 Advanced Coatings Topics. 3 hrs
Development of in-depth formulating skills; new technology areas in coatings and polymers.
Prereq: IDT 402, IDT 403, or department permission.

IDT 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.

IDT 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: PLS 450 or department permission.

IDT 477/478/479 Special Topics. 1/2/3 hrs
An examination of topics in interdisciplinary technology not covered in other department offerings. Students may elect these courses more than once as long as different topics are studied.
Prereq: Department permission.

IDT 487 Cooperative Education. 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 Department of Interdisciplinary Technology. Regular employee benefits may be received during the employment period.
Prereq: Department permission.

IDT 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 shifting 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.
IDT 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
Lt. Col. David R. Klubeck
Department Head
18 Roosevelt Building
487-1020
Assistant Professors: Maj. Donald D. Guthrie, Capt. Peter J.
White

The military science program provides men and women 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 commis­
sioned a second lieutenant 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 $100 per
month subsistence allowance is paid for each school month during
the period of the scholarship. Application can be made by contact­
ing the Department of Military Science 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 sum­
mer months, which takes the place of the on-campus MS 100 and
200 courses. While in summer training, the student remains a
civilian but earns Army pay and travel allowances. Upon complet­
ing the program, the student may be granted eight semester hours
credit upon the recommendation of the Military Science Depart­
ment and may apply for entry into the MS 300-level courses.
Students may compete for two-year ROTC scholarships while at
summer training. Applications for the two-year program are ac­
cepted 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 approxi­
mately $240 per month. SMP is an excellent opportunity to learn
applied management skills.

Veterans and JROTC programs offer advanced placement
credit to individuals who have completed basic training or three
years JROTC in high school and have completed a minimum of 54
college credits. Credit may be given for MS 100 and 200 courses.
Applicants should contact the department for acceptance into MS
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, MS 300 and 400 participants receive $100 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 $100 per month pay in addition to any
other veterans benefits they are receiving.

Programs of Study
Minor:
Military Science
Advising requirements specify that each year-level of students report to an assigned instructor. All students, prior to entry into the advanced program, must be processed by the enrollment officer.

Advising Coordinator: Lt. Col. David R. Klubeck

Special Requirements
Admission into the advanced program 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.

The field work criteria is that all members of the advanced program participate in a field training exercise (FTX) each semester.

Credit Toward Graduation
The 12 semester 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 their academic advisers or the Academic Advising Center.

ACADEMIC MINOR

<table>
<thead>
<tr>
<th>Minor in military science</th>
<th>Sem hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS 100 Fundamentals of Leadership and Management I</td>
<td>2</td>
</tr>
<tr>
<td>MS 101 Fundamentals of Leadership and Management II</td>
<td>2</td>
</tr>
<tr>
<td>MS 200 Applied Leadership and Management I</td>
<td>2</td>
</tr>
<tr>
<td>MS 201 Applied Leadership and Management II</td>
<td>2</td>
</tr>
<tr>
<td>MS 300 Advanced Military Leadership and Management I</td>
<td>3</td>
</tr>
<tr>
<td>MS 301 Fundamentals and Dynamics of the Military Team I</td>
<td>3</td>
</tr>
<tr>
<td>MS 400 Fundamentals and Dynamics of the Military Team II</td>
<td>3</td>
</tr>
<tr>
<td>MS 401 Advanced Military Leadership and Management II</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

MILITARY SCIENCE COURSES

MS 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.)

MS 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.

MS 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.

MS 201 Applied Leadership and Management II | 2 hrs
A continuation of MS 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.

MS 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.

MS 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.

MS 302 Leadership Laboratory | 3 hrs
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.

MS 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.

MS 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.

MS 402 Leadership Laboratory | 3 hrs
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.

MS 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.
CONTINUING EDUCATION

Paul T. McKelvey, Dean
Arthur N. McCafferty, Associate Dean
Neeta M. Delaney, Director—Marketing and Special Programs
George J. Klein, Director—Academic Programs Abroad
321 Goodison Hall
487-0407

PROGRAM AREAS

Academic Programs Abroad
Adventures in Education
Independent Study (Distance Education)
Regional Learning Centers
Weekend University
CONTINUING EDUCATION
Paul T. McKelvey
Dean
304 Goodison Hall
487-0407

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

Course Listings
Each semester, Continuing Education publishes a Course Bulletin listing the courses available that semester. These bulletins are available at the Continuing Education Student Information Center in 321 Goodison Hall and in display racks in various locations around the EMU campus. Since some courses are scheduled after the Course Bulletin is published, you may also want to stop by the office to check the course listing update posted in the hallway. You can also call 487-0407 with questions about the availability of a particular course.

As with all EMU courses, your academic adviser is the person best equipped to guide you and answer specific questions about which courses will meet the requirements of your program of study.

SPECIAL PROGRAMS AND SERVICES

ACADEMIC PROGRAMS ABROAD
George J. Klein
Director
333 Goodison Hall
487-2424

In today's interconnected world, a global perspective is increasingly important and valuable for a student's personal growth and professional career. The Office of Academic Programs Abroad provides opportunities for students to diversify and enrich their university education through several kinds of study abroad programs. Students earn Eastern Michigan University credit and may apply any EMU grants, scholarships, or loans toward the cost of the program.

Semester-Long Programs:

1) The European Cultural History Tour, offered fall semester, is a unique travel-study program that includes more than 50 cities in 16 countries throughout Europe, Russia, and the Mediterranean. Students and EMU professors visit major historic and cultural sites while pursuing in-depth academic studies in an interdisciplinary context. Up to 15 hours of credit are available in history, art, literature, and political science. Since its beginning in 1974, ECHT has grown to become the largest university-sponsored program of its kind in the country, drawing students from EMU as well as other colleges and universities throughout the United States and Canada. ECHT is also offered in summer.

2) The Asian Cultural History Tour, offered winter semester, follows the travel and academic format of the European Cultural History Tour. It visits more than 40 cities in 11 Asian countries, including China, India, and Russia. Up to 15 credit hours are available in history, art, comparative religion, and political science, taught in an interdisciplinary context. In addition to studying the traditional cultures of Asia, participants focus on the contemporary problems of developing Asian countries.

3) An exchange program with the University of Groningen in the Netherlands brings Dutch students to the Eastern Michigan University campus and sends EMU students to the Netherlands. EMU students may earn up to 15 credits attending the University of Groningen during the fall or winter semester. Students may choose classes in the Dutch Studies Program on topics such as art, history, sociology, and language, or they may take political science courses through the School of Law. Courses are taught in English. Tuition and housing costs are the same as a semester in residence at EMU. The Netherlands is centrally located in Europe and an excellent base for travel.

Summer Intensive Language Programs:
Intensive French, Spanish, and German language programs are available in Canada, Mexico, and Austria respectively, in settings of cultural immersion with additional instruction and supervision by EMU faculty. All levels of instruction are available. These programs are offered in cooperation with the Department of Foreign Languages and Bilingual Studies.

Other Summer Programs:
A version of the European Cultural History Tour is available in summer, along with a variety of travel and residence programs that carry credit in such fields as art, business, economics, education, history, political science, and social work. These study abroad
programs have taken students to countries in Europe, Africa, Asia, and Latin America. Contact the Office of Academic Programs Abroad for current program details.

Additional Study Abroad Opportunities:

Eastern Michigan University students may also attend study abroad programs offered by other universities and transfer the credit back to EMU. A study abroad adviser is available to assist students in a number of ways: finding a program to suit their individual areas of interest, arranging for transfer of credit, and applying for financial assistance. Students are encouraged to take advantage of the library in the Office of Academic Programs Abroad, which houses information on hundreds of study abroad opportunities.

ADVENTURES IN EDUCATION
Karen Cline
Coordinator
323 Goodison Hall
487-0407

Adventures in Education programs are all built around the concept of intensive (1 to 2 weeks) shortened courses offered in beautiful resort-like or adventurous settings appropriate or relevant to the course content. Most Adventures in Education programs are held in the summer months or during other traditional breaks in the academic year. The students who take advantage of these programs do not fall into a stereotype. They include adult learners, traditional age undergraduates, teachers, and other seasoned professionals from many fields. The diversity of participants is a strength of the Adventures programs. For more information, call 487-0407 local or (800) 777-3521 toll free.

INDEPENDENT STUDY
(DISTANCE EDUCATION)
Michael McPhillips
Coordinator
327 Goodison Hall
487-1081

The Independent Study Program allows you to enroll anytime and earn university credit without classroom attendance. The time limit for course completion is six months. When you register for a course through our Independent Study Program, you receive study guides, instructions, and all required assignments. In addition, all courses incorporate audio and/or video materials. Assignments, papers, and proctored exams are an integral part of each course. Courses are academically rigorous; students on probation may not enroll. For course listings and additional information, contact the Independent Study Office.

REGIONAL LEARNING CENTERS
In order to make it more convenient for individuals living in southeastern Michigan to take courses through Eastern Michigan University, Continuing Education offers a wide range of courses at a number of off-campus locations. These courses are coordinated through three EMU Continuing Education Regional Learning Centers located in Detroit, Flint, and Jackson and are listed in the Continuing Education Course Bulletin. Registration for these courses is no different than for any other course. See the Course Bulletin for details. For more information, you can either call the Regional Center directly or our main campus office at (800) 777-3521 long distance or (313) 487-0407 local.

Regional Learning Centers
Detroit: (313) 831-5280
Flint: (313) 762-0303
Jackson: (517) 787-7265
OFFICES, OFFICERS, AND OTHER CAMPUS DEPARTMENTS AND LOCATIONS

THE GRADUATE SCHOOL
UNIVERSITY ADVANCEMENT
STUDENT REFERENCES
UNIVERSITY CAMPUSES
ATHLETIC FIELDS
ADMINISTRATIVE OFFICERS
FACULTY AND STAFF
EMERITUS FACULTY
THE GRADUATE SCHOOL

Ronald E. Goldenberg
Dean
Starkweather Hall
487-0042

The Graduate School provides advanced undergraduate students with an opportunity to enroll in selected graduate level courses provided that they meet the Graduate School’s admission standards and have achieved the requisite number of undergraduate credits. This privilege afforded to only EMU advanced undergraduate students will provide these students with an opportunity to advance their academic standing at the graduate level and be considered for graduate admission to one of the many graduate programs offered by the University.

Graduate School catalogs are available at the time of admission without charge at Starkweather Hall. Additional copies may be purchased at the bookstore in McKenny Union. Students are responsible for the information therein and are affected by the policies and regulations explained in that catalog.

Advanced undergraduate students at Eastern Michigan University may register for 500-level graduate courses if recommended by their advisers and approved by the assistant dean of the Graduate School prior to registering for the class. Credit earned may be used to meet the requirements of the baccalaureate degree (recorded as undergraduate credit) or to apply toward a master’s degree (graduate credit).

The following regulations apply:

1. Student applicants must have accumulated 76 hours or more of undergraduate credit and have a cumulative grade point average (GPA) of 2.50 or better in all course work completed at Eastern Michigan University.
2. Elevation of graduate hours as an undergraduate must be limited to the 500-level course series. Advanced undergraduates are not permitted to enroll in 600- or 700-level course series. Students must be admitted to a graduate degree program in the College of Business in order to enroll for a 500-level business course.
3. Credit so earned may be used for only one of two purposes:
   a. to meet the requirements of the baccalaureate degree, thus receiving undergraduate credit;
   b. to apply toward a master’s degree, thus receiving graduate credit.
4. Permission to enroll in graduate courses as an advanced undergraduate should not prolong completion of undergraduate degree requirements.
5. The maximum number of graduate hours that can be elected as an advanced undergraduate student is 15. Senior students who hold guest admission in the University are not eligible to enroll in graduate courses.
6. Permission to take graduate courses does not represent admission to the Graduate School. Students desiring to continue graduate study and utilize the graduate credit earned in courses elected as an undergraduate must apply and meet all requirements for admission to the Graduate School and degree programs.

Procedures for graduate admission require the student to complete and submit the application for admission directly to the Graduate School with official transcripts of all undergraduate and graduate credit earned. Where necessary, official scores from national examinations must be submitted (departments requiring examination scores are listed in the Graduate Catalog).

Please note the following deadline schedule. These are the dates the Graduate School must receive all application materials required for admittance to a degree program at Eastern Michigan University.

<table>
<thead>
<tr>
<th>Term</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall admission</td>
<td>March 15</td>
</tr>
<tr>
<td>Winter admission</td>
<td>September 15</td>
</tr>
<tr>
<td>Spring/Summer admission</td>
<td>February 15</td>
</tr>
</tbody>
</table>

Applications received after the above established deadlines will be moved to the subsequent semester; i.e., an application for fall semester received April 1 will be processed for winter semester. All documents and supporting data required for admission become the property of the Graduate School and will not be returned.

Applicants are not officially admitted to the Graduate School and the requested graduate academic program until they have been notified in writing of acceptance by the Graduate School.

ADMISSION CATEGORIES

It should be understood that the admission policies presented are minimum standards and that many departments have established criteria above these minimums. For this reason, applicants for degree admission may have to meet additional requirements established by departments. These requirements often include standardized examinations, valid teaching certificates, letters of recommendation and/or personal interviews and grade point averages above the minimum established by the Graduate School.

Anyone planning to enroll in graduate level courses must be admitted to the Graduate School through one of the following two admission categories: degree admission or non-degree student status.

ADMISSION REQUIREMENTS

Specialist’s Degree

A minimum grade point average of 3.3 (B+) in the master’s degree program is required for admission to the specialist’s degree. For those departments admitting students into the specialist’s degree directly from the bachelor’s degree, a minimum undergraduate grade point average of 2.75 is required. Departments may establish standards higher than this minimum.

Master’s Degree

Degree admission requires that the applicant hold a bachelor’s degree from an accredited college or university and possess a minimum undergraduate grade point average of 2.50 (4.0) or 2.75 in the last half of the undergraduate program. Applicants who do not possess minimum requirements for admission may be granted conditional admission. Conditions of admission must be met prior to beginning core course work for the degree.

TYPES OF ADMISSION

Degree Admission Status

Degree admission into a master’s or graduate certificate program requires that the candidate meet both the Graduate School requirements (conferred bachelor’s degree and at least a 2.5 GPA or 2.75 GPA in the last half of the undergraduate program) and the departmental admission requirements as stated in the Graduate Catalog. Specialist’s degree admission requires a 3.3 GPA in the completed master’s program.

Conditional Admission

Condition 1: Curriculum Deficiencies is a conditional admission status for students who meet the degree admission requirements of the Graduate School, but have curricular deficiencies in their undergraduate program and/or other departmental standards and therefore do not meet departmental admission requirements. In such cases, special conditions noted on the departmental recommendation form must be completed prior to gaining degree admission.

Condition 2: Senior Status is the conditional admission granted to candidates completing an undergraduate degree at the end of the current semester and is valid for one enrollment period only. This
condition is removed when the student submits an official undergraduate transcript with the baccalaureate degree posted.

**Condition 3: English as a Second Language Program** is a conditional admission status granted to international non-native speakers of English who scored below the required minimum score in the English proficiency exam (TOEFL and the Test of Written English, or MELAB) and will be required to elect appropriate ESL courses. The ESL courses are determined by the ESL program staff based on the candidate’s score and a placement examination. The examination is administered by the English as a Second Language program staff at Eastern Michigan University prior to the beginning of each term.

**Non-Degree Admission**

The purpose of graduate study at Eastern Michigan University is a planned program of study leading to an advanced degree. Students who are exploring graduate study opportunities may enroll in a non-degree status. Non-degree students may enroll under this status for any of the semesters or sessions (fall, winter, spring or summer). Students can transfer from non-degree student status to degree status if they meet departmental and Graduate School requirements (see Transfer of Credit to Degree Programs from Non-Degree Student Status). Policy states that a student must complete a minimum of 10 semester hours after admission to the degree program. Subject to University policy, non-degree students can earn a graduate certificate in such programs as artificial intelligence, gerontology, quality, and state and local history.

Credits earned do not automatically apply toward a degree program but are dependent upon admission to the Graduate School, the requirements of the program, recommendation by an adviser, and the approval of the Graduate School.

**Status 1: Academic Deficiencies** is a non-degree admission status granted on the recommendation of the academic department to candidates who do not meet the minimum undergraduate grade point average (2.5 GPA) requirement of the Graduate School or the academic department GPA requirements, whichever is higher; and/or have graduated from a non-accredited academic institution; and/or have demonstrated the potential to perform graduate level work at Eastern Michigan University. This type of admission provides students with an opportunity to demonstrate that they can be successful in a graduate program at EMU by completing a minimum of nine and no more than 12 graduate level credit hours specified by the department, while maintaining good academic standing (3.0 GPA). The hours elected as a non-degree admission candidate can only be applied to a graduate degree program upon the recommendation of the coordinator of graduate advising. It should be specifically noted that successful completion of nine and not more than 12 graduate level credit hours with a 3.0 GPA does not guarantee, nor does it constitute, admission to a graduate degree program.

**Status 2: Professional Certification** is a non-degree admission status granted to certified teachers and other professionals in education who explicitly indicate that they do not intend to pursue a graduate degree program but wish to enroll only in graduate level courses to meet professional certification requirements. The academic courses that are elected via the non-degree admission status do not follow a prescribed graduate degree program and do not earn the student a graduate degree.

**Status 3: Continuing Education Division Courses** is a non-degree admission status granted to students who enroll in courses through Continuing Education. Courses taken under this non-degree admission status do not automatically apply to a graduate degree. Students intending to use graduate-level courses offered through Continuing Education on a degree program must seek formal admission to a graduate degree by completing an admission application and providing the Graduate School with official transcripts. The applicability of the courses to a degree program is subject to acceptance by and recommendation of the department offering the degree, and the approval of the Graduate School.

**Status 4: Personal/Professional Development** is a non-degree admission status granted to candidates who wish to enroll in graduate level courses for self-enrichment purposes and/or participate in a graduate certificate/advanced graduate certificate program. Courses taken under this admission status do not automatically apply to a graduate degree at Eastern Michigan University.

**Financial assistance** is available to graduate students under specific programs listed previously in the Financial Aid section of this catalog. This includes the College Work-Study Program, student employment, and educational loans such as Perkins Loans and the Stafford Loan Program.

**Graduate assistantships** are available through academic departments, and are awarded on the basis of the qualifications of the applicant. Each appointment requires considerable research time and precludes other employment. A stipend (salary) is paid; the amount depends upon the terms of employment. In addition, depending upon the appointment, the University pays full tuition for up to 18 credit hours for each fiscal year of the assistantship, as well as registration, health service, and student government fees.

The total assistantship package varies in value depending on whether you receive a full-time or part-time assistantship or whether you are a resident or non-resident of Michigan. Graduate students interested in applying for such positions should write to their major area department head or the Graduate Dean’s Office.

A limited number of assistantships are funded through the College Work-Study Program. Interested students should contact their major area department head or the Graduate Dean’s Office. Students need to submit the graduate assistantship application material, as well as the Family Financial Statement or Financial Aid Form, to qualify for the College Work-Study Program.

The minority graduate assistantship program strives to attract highly qualified minority students in academic disciplines that traditionally have not been accessible to minorities. Eastern Michigan University has continually encouraged the application and enrollment of promising minority graduate students and recognizes the need for well-trained minority scholars. For more information on this program, please call 487-0042.

The graduate fellowship program is an honor awarded to selected graduate students for academic merit. The award is a $300 tuition waiver per semester (fall and winter) with the proviso that the fellow must enroll in and complete at least six hours of graduate level course work in each of the terms of the award. Undergraduate courses taken for graduate credit are not considered part of the required six hours.

Both new and continuing graduate students may apply for graduate fellowships. New graduate students must present a minimum 3.2 cumulative undergraduate GPA to receive consideration. Graduate students who have already begun their programs must present a minimum of 3.6 cumulative graduate GPA to receive consideration. Students having completed more than 15 graduate hours of their current degree program at the time of initial application are not eligible for this program.

Graduate fellows (1) must hold admission to an academic program leading to either a master’s or a specialist’s degree; (2) must maintain a cumulative graduate GPA of 3.6 at all times during their fellowship in order to maintain the award; and (3) are eligible for reappointment for one additional academic year if they apply and continue to achieve a 3.6 cumulative graduate GPA. Students accepted into the graduate assistantship program are not eligible to be graduate fellows.

Applications are available in the Graduate Dean’s Office, Starkweather Hall.
The Graduate Dean's Award for Research Excellence is a $250 cash award made in the fall and winter semesters to reward excellence in ongoing or completed research projects.

Currently enrolled Eastern Michigan University graduate students or recent graduates (within one year) are eligible to apply for the award. Part- and full-time students who have completed 15 semester hours and are in good academic standing are encouraged to apply.

The major criterion for the award is the exhibition of superior initiative in the student's own research project.

Deadlines for application are November 15 for the fall award and March 15 for the winter award. Applications are available in the Graduate Dean's Office, Starkweather Hall.

The Barton Scholarship is a one-time competitive award of $500 which is applied to the recipient's tuition and fees. Applications will be considered by the Graduate School Scholarship Committee bi-annually for the fall and winter semesters. Applicants must (1) either be enrolled in the final semester of their undergraduate program of study and earn a baccalaureate degree from Eastern Michigan University with no graduate level academic work completed prior to receiving the award, or have previously earned a baccalaureate degree from EMU and have not enrolled in courses as a graduate student prior to receiving the award; (2) must have a cumulative undergraduate GPA of 3.5 or better at the time of submitting the scholarship application; and (3) must become candidates for admission into a graduate academic program at Eastern Michigan University or The University of Michigan prior to submitting the Barton Scholarship application form. Students who wish to pursue their graduate studies at The University of Michigan must submit a completed Graduate Admission Verification Form before consideration can be given to their scholarship application. The deadline for submission of materials for a fall semester award is June 30 and November 30 for a winter semester award.

Applications are available in the Graduate School, Starkweather Hall.

The Anton Brenner Scholarship is a one-time competitive award of $500 which is applied to the recipient's tuition and fees. Applications will be considered by the Graduate School Scholarship Committee for each fall semester. Applicants must (1) have completed at least one full academic semester (spring and summer combined equals one full semester) at EMU and earned at least 10 graduate credit hours toward their master's degree prior to submitting an application for the award; (2) have a cumulative graduate GPA of 3.5 or better at the time of submitting the scholarship application; (3) be enrolled in at least four graduate credit hours during the fall semester for which the scholarship award is granted; and (4) submit an application on or before April 15 to be considered for an award the following fall. Applications are available in the Graduate School, Starkweather Hall.

Office for Alumni Relations

George G. Beaudette
Director
15 Welch Hall
487-0250

Alumni are Eastern Michigan University's lifeline to every community in the state of Michigan, to business and industry across the country, and to the world-at-large. The continuing interest of graduates and former students is a major investment in the progress and future of EMU.

The Office for Alumni Relations is the coordinating body for all alumni activity and the means by which personal relationships established during student days can be maintained and renewed.

It is responsible for updating the computerized list of 87,000 known alumni, assisting in special reunions of various constituent groups of alumni, providing programs for special alumni meetings and giving staff support to the Alumni Association and various other alumni groups. Special activities include Homecoming, a yuletide program, a dinner dance honoring distinguished alumni, golf outings, concerts and other periodic activities.

In August 1983, it initiated a new alumni periodical, Eastern Today, published annually in cooperation with the Offices of Public Information and Publications. The magazine is designed to enhance communications about and among alumni, faculty, administration, and friends of EMU. The monthly (academic year) newsletter Connection was added in 1992.

The Alumni Association plans programs of interest for alumni and serves as the vehicle for communicating to the University faculty and administration the concerns of EMU's alumni as they relate to the development of the University.

Active in fund raising campaigns, the association is responsible for the Memorial Chimes and Pierce Hall clocks given in former years, and more recently for gifts to the University Library, various established funds and scholarships, and additional scholarships and aid to student organizations. Charles McKery Union, completed in 1931 and built through the cooperative efforts of alumni and the University, stands as a visible symbol of the association's ongoing service to EMU.

The association is governed by a 24-member board of directors elected in the spring of each year by a vote of all eligible association members. The president of the University and the executive vice president are ex-officio members of the board; the director of the Office for Alumni Relations serves as secretary.
OFFICE OF DEVELOPMENT
Russell B. Wright
Associate Executive Vice President
II Welch Hall
487-3036

The Office of Development was established in 1975 to create a new awareness of the University's ever-increasing need for private support and to organize a University-wide development program.

Its primary functions include the identification, cultivation and solicitation of alumni, friends, parents, corporations, foundations, and civic and labor organizations; the design and implementation of direct-mail, telemarketing, and personal solicitations to meet specific annual, capital, and endowment objectives; the receipt, acknowledgment, and accurate recording of all gifts to the University; and the coordination of all fund-raising activities undertaken in the name of Eastern Michigan University.

OFFICE OF RESEARCH DEVELOPMENT
David L. Clifford
Director and Associate Graduate Dean
Michelle Barnes
Associate Director
Dorothy Spurlock
Research Associate
B-18 Goddard Hall
487-3090

The Office of Research Development's objectives are to stimulate, initiate, develop, and administer externally sponsored activities in the University by working with faculty, administration, and students interested in obtaining funds for research, demonstration programs, training, instruction, service, experimental projects, and other efforts directed toward expanding the scope and quality of the University.

Its activities include:
1. identification of funding sources through liaison with governmental and private agencies, screening of program announcements and requests for proposals, and personal contacts;
2. providing information on funding opportunities;
3. maintaining informational files on private, state and federal funding programs and updating changing priorities or funding levels of potential sponsors;
4. assisting faculty and staff in developing workable project plans and budgets;
5. assisting proposal writers in developing budgets and plans, editing, and preparing proposals for submission, obtaining all necessary University approvals, and formally submitting the completed application to the funding agency;
6. assisting in the administration of externally sponsored programs by providing post-award support services to grant recipients, including negotiation and writing of grant and contract agreements;
7. exercise oversight of research and other projects to assure compliance with applicable federal regulations such as those covering the use of human subjects, the care and use of animals, and scientific misconduct.

THE WORLD COLLEGE
Ray Schaub
Director and Professor of German
Geoffrey M. Voght
Associate Director and Professor of Spanish
Louis Saalbach
Manager, Communication and Marketing
David Archbold
Manager, International Cooperative Education Exchange Program

307 Goodson Hall
487-2414

Eastern Michigan University established the World College in 1987 as one of the top institutional priorities of the University's "Decade of Advancement." The result of internal restructuring, this new college evolved from the administrative function of the Language and International Trade Program in the department of Foreign Languages and Bilingual Studies. It also encompasses the functions of the former Office of International Projects.

Reporting to the Provost and Vice President for Academic Affairs and to the Executive Vice President, the World College coordinates and facilitates the development of internationally-focused programs via collaboration with the entire University community. Among the major goals of the World College are:
- To facilitate the incorporation of global perspectives in university curricula.
- To assist in developing and maintaining liaison with foreign academic institutions, governments and business organizations.
- To serve as a clearinghouse of information and referrals regarding internationally-focused projects, programs, events, and activities.
- To assist faculty and staff in internationalizing their own expertise and in applying their expertise to new international endeavors.
- To increase international educational experiences for students and faculty, on campus and abroad.
- To develop international programs through federal and state funding.
- To develop contract-based, non-credit, internationally-focused experiences and courses for the public and private sectors.

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

Bette White
Dean of Students
205 Goodison Hall
487-3118

Official policies regarding student conduct and grade grievance procedures are established by the University's Board of Regents. Copies of the Student Conduct Code may be obtained in the Dean of Students' Office.

CONDUCT CODE AND JUDICIAL STRUCTURE FOR STUDENTS AND STUDENT ORGANIZATIONS

Section I.
A. University-Wide Regulations

The following conduct, should it take place on University owned or controlled property or at a University sponsored or supervised event, may result in disciplinary action by the University, including dismissal from the University.

1. Use of alcohol
   Consumption or possession of alcoholic beverages by persons under 21 years of age. Consumption or possession of alcoholic beverages by any person at any place or at any time where not specifically permitted by University policy or regulation. NOTE: Transportation in sealed containers to and from an authorized area or place is permissible if the person in possession has attained the legal age as prescribed by Michigan law for the legal possession of alcoholic beverages.

2. Drugs
   (a) Drug distribution. Distribution of narcotic or drug substance in violation of local, state, or federal drug or narcotic laws.
   (b) Drug usage. Use or possession of any drug or narcotic in violation of local, state, or federal drug or narcotic laws.

3. Property
   (a) Theft of University property or property of a member of the University or visitor.
   (b) Damage, destruction, or defacement of University property or property of a member of the University or visitor.
   (c) Wrongful appropriation of University property or property of a member of the University or visitor.

4. University facilities
   (a) Unauthorized use: including entry to, occupation of, or blocking ingress or egress of University facilities such as but not limited to buildings, classrooms, hallways, entryways, conference rooms, campus grounds, as well as unauthorized use of vehicles, equipment, or services or University name or logo (including University Computing Center).
   (b) Gambling: on campus for money or other things of value except as provided by law.
   (c) Pets: Dogs, cats, reptiles, or other animals are prohibited in University buildings or on University grounds, except where properly authorized.

5. Disruptive conduct
   (a) Active participation in or instigation of disruption or obstruction of any University activity.
   (b) Disturbance of or harassment of any member of the University community or visitor.

6. Physical abuse
   (a) Physical abuse or threat of physical abuse or unwarranted inflammatory provocation to physical abuse against any member of the University community or any person on University property or conduct which threatens or endangers the mental or physical health or safety of any such person.

(b) Sexual harassment: Sexual harassment means unconsented physical contact of a sexual nature, unwelcome sexual advances, unwelcome requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment.

7. Discrimination and discriminatory harassment
   It is the policy of Eastern Michigan University to maintain an educational environment free from harassment, humiliation, and intimidation of students and other members of the University community. Discriminatory harassment, as defined herein, is prohibited and offenders are subject to disciplinary action under Section 3, infra (Judicial Structure for Students and Organizations). Speech or other expression constitutes discriminatory harassment under any of the following circumstances.
   (a) If it:
      1. is intended to insult or otherwise injure an individual on the basis of personal characteristics such as, but not limited to, race, ethnicity, color, national origin, creed, religion, ancestry, age, handicap, or sexual orientation, and
      2. is addressed directly to the individual whom it insults, and
      3. amounts to "fighting words."
   "Fighting words" are those personally abusive epithets which, when directly addressed to any ordinary person are, in the context used and as a matter of common knowledge, inherently likely to provoke a violent reaction, whether or not they actually do. Such words include, but are not limited to, derogatory references to the personal characteristics described in Section I above.

4. This section (a) shall be construed as a proscription of all so-called "fighting words."

(b) If it:
   1. constitutes a violation of MCL 750.147b, prescribing criminal and civil penalties for ethnic intimidation. See PA 1988 No. 371-1, effective March 30, 1989.

4. This section (c) shall be construed as a proscription of all so-called "fighting words."

(c) If it:
   1. presents a clear and present danger of substantial disorder, violence, interruption of classes, or material interference with the operation of the University.

(d) If it:
   1. consists of extreme or outrageous acts or communications intended to harass, intimidate, or humiliate the person to whom it is directed on account of the personal characteristics described in Section A-1 and reasonably causes such person or persons to suffer severe emotional distress.

Severability
Any part of the foregoing provisions of Section 7 which shall be found by a court of competent jurisdiction to be unconstitutionally abridge a person's right to free speech and expression shall be severed, held for naught, and the balance of such Section 7 shall remain fully enforceable.

8. Falsification of records
   (a) Furnishing false information to the University.
The following conduct, should it take place on University owned or controlled property or at a University sponsored or supervised event, may result in disciplinary action by the University, including separation from the University.  

9. Firearms, weapons, and explosives  
   (a) Possession or use of firearms and other weapons.  
   (b) Possession or use of firecrackers, gunpowder, explosives or incendiary devices, or other materials which endanger health or safety.  

10. Fires or fire alarm systems and equipment  
   (a) Tampering with or misuse of fire alarm systems or firefighting equipment.  
   (b) Intentionally or recklessly burning or setting fire to any building or starting unauthorized fire on University property.  

11. Academic dishonesty  
   Students are not to engage in any form of academic dishonesty including, but not limited to, plagiarism, alteration of records, substitution of another’s work representing it as the student’s own, and knowingly assisting another student in engaging in any such activity.  
   For purposes of this section, plagiarism is defined as the knowing use, without appropriate approval, of published materials, expressions, or works of another with intent to represent the material(s) as one’s own.  

12. Other University regulations:  
   Violation of any of the following posted or published University regulations:  
   (a) EMU policy manual(s);  
   (b) Terms and conditions of the residence hall contract;  
   (c) EMU published undergraduate and graduate catalogs;  
   (d) Rules and regulations specific to University buildings.  

B. Off-Campus Conduct  
Individual or group conduct described in the regulations in Part A which occurs off-campus also may result in disciplinary action by the University when:  
1. such conduct has or tends to have a substantial adverse impact on the interest of the University or an individual within the University community, and  
2. there is a showing to that effect to the satisfaction of a University hearing board to which the case is referred.  

Section II. Conduct Code for Student Organizations  
Recognized student organizations have considerable freedom to accomplish their goals. However, they must conform to the policies, regulations, and procedures for student organizations and the Code of Conduct. Any group in violation of these standards is subject to disciplinary action. Original jurisdiction for conduct cases for all recognized student organizations is held by the Dean of Students Office.  

A. University-Wide Regulations  
The following conduct, should it take place on University owned or controlled property or at a University sponsored or supervised event, may result in disciplinary action by the University, including separation from the University.  
1. Non-discrimination by organizations  
   (a) Every student organization registered and approved by the University is expected to be free to select its membership upon the basis of individual merit. Any student organization selecting its membership upon the basis of restrictive clauses involving race, religion, color, national origin, sex, age, or handicap will be considered to be operating in conflict with University policy.  
   (b) Exceptions to this policy include religious qualifications which may be required by organizations whose aims are primarily sectarian, and social fraternities and sororities that are permitted by federal and state law to discriminate on the basis of sex.  
   (c) Should a student organization be in conflict with University policy in the selection of its members, the group will be asked to submit evidence that action has been or is being taken to remove such restrictive membership provision such as a request for a waiver of the restriction from the national organization. A reasonable period of time as determined by the Dean of Students Office may be granted to remove the restrictive provisions. Continued restriction of membership by constitutional requirements or other binding enactment contrary to University policy will result in withdrawal of University registration of the student organization.  

2. Property  
   (a) Theft of University property or property of a member of the University or visitor.  
   (b) Damage, destruction, or defacement of University property or property of a member of the University or visitor.  
   (c) Wrongful appropriation of University property or property of a member of the University or visitor.  
   (d) Unauthorized possession of University property or property of a member of the University or visitor.  

3. University facilities  
   (a) Unauthorized use including entry to, occupation of, or blocking ingress or egress of University facilities such as but not limited to buildings, classrooms, hallways, entryways, conference rooms, outside grounds as well as unauthorized use of vehicles, equipment, services, or University name or logo (including University Computing Center).  
   (b) Misuse of University facilities, vehicles, equipment, services, or University name or logo including but not limited to use for purposes other than intended or authorized.  

4. Falsification of records  
   (a) Furnishing false information to the University.  
   (b) Forgery, alteration, or improper use of University documents, records, or identification.  

5. Disruptive conduct  
   (a) Active participation in or instigation of disruption or obstruction of any University activity.  
   (b) Disturbance or harassment of any member(s) of the University community or any person(s) on campus in an official capacity or visitor(s).  

6. Physical abuse  
   (a) Physical abuse or threat of physical abuse or unwarranted inflammatory provocation to physical abuse against any member of the University community or any person on University property or conduct which threatens or endangers the mental or physical health or safety of any such person.  
   (b) Sexual harassment: Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment as defined and otherwise prohibited by state or federal statutes.  
   (c) In cases where the activity is performed by an individual member of a student organization, the total organization may be held responsible when those members not directly involved participate in said activity by encouraging, witnessing, or condoning the act in any manner.  

(b) Sexual harassment: Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment as defined and otherwise prohibited by state or federal statutes.  
   (c) In cases where the activity is performed by an individual member of a student organization, the total organization may be held responsible when those members not directly involved participate in said activity by encouraging, witnessing, or condoning the act in any manner.
7. Discrimination and discriminatory harassment

It is the policy of Eastern Michigan University to maintain an educational environment free from harassment, humiliation, and intimidation of students and other members of the University community. Discriminatory harassment, as defined herein, is prohibited and offenders are subject to disciplinary action under Section 3, infra (Judicial Structure for Students and Organizations). Speech or other expression constitutes discriminatory harassment under any of the following circumstances.

(a) If it:
   1. is intended to insult or otherwise injure an individual or be based on personal characteristics such as, but not limited to, race, ethnicity, color, national origin, creed, religion, ancestry, age, handicap, or sexual orientation, and
   2. is addressed directly to the individual whom it insults, and
   3. amounts to "fighting words."

   "Fighting words" are those personally abusive epithets which, when directed to another person, in the context used and as a matter of common knowledge, inherently likely to provoke a violent reaction, whether or not they actually do. Such words include, but are not limited to, derogatory references to the personal characteristics described in Section 1 above.

   4. This section (a) shall be construed as a proscription of all so-called "fighting words."

(b) If it:
   1. constitutes a violation of MCL 750.147b, prescribing criminal and civil penalties for ethnic intimidation. See PA 1988 No. 371-1, effective March 30, 1989.

(c) If it:
   1. presents a clear and present danger of substantial disorder, violence, interruption of classes, or material interference with the operation of the University.

(d) If it:
   1. consists of extreme or outrageous acts or communications intended to harass, intimidate, or humiliating the person to whom it is directed on account of the personal characteristics described in Section A-1 and reasonably causes such person or persons to suffer severe emotional distress.

Severability

Any part of the foregoing provisions of Section 7 which shall be found by a court of competent jurisdiction to be unconstitutional to unconstitutionally abridge a person's rights to free speech and expression shall be severed, held for naught, and the balance of such Section 7 shall remain fully enforceable.

8. Hazing

(a) Eastern Michigan University students as individuals or members of registered student organizations are expressly forbidden from engaging in hazing. Initiation into University organizations is permissible excluding any activities construed as hazing.

(b) Hazing shall be defined as the performing of an act or insisting that another, including the initiate, perform an act for initiation individually or with any student or other organization which may cause or create an unnecessary risk or cause mental or physical harm to any person or which is not deemed socially acceptable.

Such acts include, but are not limited to requiring an initiate to consume alcohol or any other substance, preventing an initiate from having at least six hours sleep in any 24-hour period, branding, paddling, causing excessive fatigue—mental or physical, expecting participation in acts which cause embarrassment, humiliation, discomfort, pain, fright, or injury or which violate any federal, state, or local statute, or University policy.

(c) In cases where the activity is performed by an individual member of a student organization, the total organization may be held responsible, when those members not directly involved participate in said activity by encouraging, witnessing, or condoning the act in any manner.

(d) Any individual and/or organization found guilty of hazing will be subject to a minimum penalty of suspension.

9. Other University regulations

Violation of any other posted or published University regulations, including but not limited to:

(a) EMU policy manual(s);
(b) Terms and conditions of the residence hall contract;
(c) EMU published bulletins (undergraduate and graduate catalogs);
(d) The Eastern Echo;
(e) Rules and regulations specific to University buildings;
(f) Campus Life Council regulations and guidelines for organizations;
(g) Student government monetary allocation guidelines.

B. Off-Campus Conduct

Conduct described in the regulations in Part A which occurs off campus also may result in disciplinary action by the University under the same provisions as the individual conduct code.

Note: Nothing in the foregoing shall subject an organization to liability under the provisions of this code for the acts of individuals unless such acts are committed under the formal or informal sponsorship, authority, direction, or as a group action of the organization.

Section III. Judicial Structure for Students and Student Organizations

A. Procedural Rights of the Student/Student Organization

1. The student/student organization shall have the right to remain silent.

2. The student/student organization shall have a right to a voluntary adviser of their choice. Such adviser shall be selected from the University community and may participate in the disciplinary proceedings. The student also shall be informed by the dean of students that assistance is available through Student Government's Student Defender's Union. The student shall be informed of the availability of such assistance prior to the disciplinary process when applicable.

When criminal prosecution is pending on charges stemming from the same incident, the student/student organization shall have a right to engage an attorney, at their own expense, of their choice to be present at a University hearing. The attorney shall not represent the student/student organization nor be a participant in the hearing but shall be permitted to consult with the student/student organization at all stages of the proceedings.

3. The student/student organization shall be given a written statement of the charges against them prior to the commencement of the disciplinary process.
B. Dean of Students Office

1. The dean of students shall have the power to investigate each student/student organization disciplinary case.

2. After investigation, the dean of students will make one of the following decisions:
   (a) charge the student(s)/student organization with misconduct and assign a penalty;
   (b) charge the student(s)/student organization with misconduct and refer the case to the UJB for review and action;
   (c) refer the case to the UJB for review and action;
   (d) not charge the student(s)/student organization.

3. In all cases where a student/student organization is charged, a written notice shall be prepared by the Dean of Students Office and served on the student(s)/student organization involved. It will satisfy this provision if such a notice is given to the student(s)/student organization's last known address registered with the University. The notice shall include the following:
   (a) A recitation of the facts which surround the violation giving, so far as possible, the date, time, and location of the behavior in question.
   (b) A recitation of the specific regulation violated.
   (c) Any penalty assigned or other action taken.
   (d) The student/student organization has ten (10) calendar days to appeal the finding in writing.

4. When a case is taken to the University Judicial Board (or Judicial Appeals Board), the complaint should be submitted in writing to the hearing board by a representative from the Dean of Students Office or by an appointee of the Dean of Students Office.

5. In case of a hearing before the University Judicial Board (or Judicial Appeals Board), the dean of students shall notify the student(s)/student organization involved of the date, time, and place of the hearing and/or pre-hearing conference. The date of the pre-hearing conference shall not be less than two (2) days prior to the date of the hearing—except by mutual consent.

C. Pre-hearing Conferences

At least two days prior to any hearing by the University Judicial Board or hearing officer, the dean of students shall schedule a pre-hearing conference for any student(s)/student organization charged with conduct violations. Such conference shall be attended by:

1. The presiding officer of the University Judicial Board or Judicial Appeals Board, or the hearing officer or a designee of one of these officers.

2. The dean of students or his/her designee and may be attended by:
   (a) Any employee of the University who may be designated to represent the University.
   (b) The student(s)/student organization involved.
   (c) Any member of the University community good standing selected by the student(s)/student organization to serve as an advisor or representative.

3. The purpose of such conference shall be to identify those issues and facts which will be presented at the hearing, to exchange information as to witnesses likely to be called, to answer procedural questions so far as possible, and to settle those matters which may be agreeably concluded. This conference will not determine questions of innocence or guilt or recommendation of penalty. The failure of the student(s)/student organization or their advisor or representative to appear shall in no way affect any procedural rights of the student(s)/student organization in subsequent disciplinary proceedings and such failure will not prohibit a hearing from being set and a hearing being held.

D. The University Judicial Board

1. Composition
   (a) The University Judicial Board shall consist of five (5) enrolled students and two (2) alternates, two (2) full-time faculty members and one (1) alternate, and two (2) full-time members of the University community and one (1) alternate (which includes current faculty, staff, employees, and students).
   (b) No member shall be on any probationary status and no member shall have any pending disciplinary action which may lead to a change of status.

2. Selection of members
   (a) The student members shall be appointed by the Student Senate as directed by their constitution and by-laws; with one student member from the Office of Campus Life.
   (b) The faculty members shall be selected by the Faculty Council.
   (c) The president or his/her designee shall appoint the members from the University community.

3. Term of office
(a) Members shall be appointed for up to a two-year period. They may be reappointed by the person or body who appointed them.

(b) Members may be removed from the board for poor attendance by a simple majority vote of the total board.

4. The chief justice shall be elected from within the body by a majority of the body.

E. Jurisdiction of the University Judicial Board

1. The University Judicial Board shall have original jurisdiction in all cases involving violations of University regulations.

2. The University Judicial Board shall exercise superintending control if there is probable cause to believe that elementary principles of fairness and justice are being or will be violated.

F. Appeals to the University Judicial Board

All appeals to the University Judicial Board shall be governed by the following:

1. Appeal may be granted on any basis.

2. Appeals shall be made to the University Judicial Board in writing through the Dean of Students Office.

3. The University Judicial Board shall decide whether or not to hear the case by majority vote.

4. All cases shall be heard from the beginning.

5. Upon motion of the student(s)/student organization party, any case may be removed directly to the Judicial Appeals Board, which shall assume original jurisdiction.

G. Procedure of the University Judicial Board

1. Prior to any discipline hearing, a pre-hearing conference will be held (see Item C, Pre-Hearing Conferences).

2. Quorum

A quorum shall exist with the presence of any six (6) members.

3. Disposition of cases

(a) A simple majority of those present shall be required for any action taken.

(b) Decisions of the University Judicial Board shall be in writing. The decision shall be based on the evidence presented.

The decision shall state what rule was violated, the behavior constituting the violation and, if known, the date, time, and place of the violation. Within forty-eight (48) hours, the decision will be submitted in writing to the dean of students for mailing to the student(s)/student organization’s last known address. Also a copy will be sent to the Judicial Appeals Board.

(c) All decisions of the University Judicial Board shall be final and shall be implemented after five (5) working days, unless appealed or as provided under Section 5, Item A. These decisions may be appealed by either party to the Judicial Appeals Board. The appeal must be in writing to the chair of the Judicial Appeals Board and delivered to the Dean of Students Office within five (5) working days from the date of the decision.

(d) The University Judicial Board shall have authority to decide on penalties sanctioned by the University (see Section 4) and/or other action deemed appropriate.

H. Judicial Appeals Board

1. Composition

(a) The Judicial Appeals Board shall consist of two (2) enrolled students, two (2) full-time faculty members, and two (2) full-time members of the University community.

(b) No members shall be on any probationary status, and no member shall have any pending disciplinary action which may lead to a change of status.

2. Selection of members

(a) The student members shall be appointed by the Student Senate as directed by their constitution and by-laws.

(b) The faculty members shall be selected by the Faculty Council.

(c) The president or his/her designee shall appoint the members from the University community.

3. Term of office

(a) Members shall serve for up to a three-year term. They may be reappointed by the person or body that appointed them.

(b) Members may be removed from the board for poor attendance by a simple majority vote of the total board.

4. Chair

The chair of the Judicial Appeals Board shall be elected by a majority vote of the board.

I. Jurisdiction of the Judicial Appeals Board

1. The Judicial Appeals Board shall have appellate jurisdiction in all cases heard before the University Judicial Board and shall have original jurisdiction on the motion of the student/student organization party in any case.

2. In the event the University Judicial Board shall fail to convene and decide any case within a reasonable time, the Judicial Appeals Board will have the power to assume jurisdiction.

3. The Judicial Appeals Board shall exercise superintending control over lower courts if there is probable cause to believe that elementary principles of fairness and justice are being violated or will be violated.

J. Appeals to the Judicial Appeals Board

1. Student/student organization appeals or administrative appeals shall be made in writing to the chair of the Judicial Appeals Board and submitted to the Dean of Students Office within five (5) working days. In case of administrative appeal, the student/student organization involved shall be notified at least five (5) working days prior to their hearing before the Judicial Appeals Board.

2. All cases on appeal will be heard from the beginning.

K. Procedure of the Judicial Appeals Board

1. Prior to any discipline hearing, a pre-hearing conference will be held (see Item C, Pre-Hearing Conferences).

2. Quorum

A quorum shall exist with the presence of any four members.

3. Disposition of cases

(a) A simple majority of those present shall be required for any action taken by this board.

(b) Decisions of the Judicial Appeals Board shall be in writing. The decision shall be based on the evidence presented. The decision shall state what rule was violated, the behavior constituting the violation and, if known, the date, time, and place of the violation.

(c) Decisions of the Judicial Appeals Board shall be submitted to the president for review with copies to the Dean of Students Office, University Judicial Board, and the student(s)/student organization.

(d) The president will make the final decision by accepting, modifying or rejecting the Judicial Appeals Board decision. If the decision is modified or rejected, the president shall provide the student(s)/student organization and the Judicial Appeals Board with the reason(s) for the modification or rejection in writing.
(e) Judicial Appeals Board and/or presidential decisions shall be in writing with specific factual findings, citing rule(s) violated and setting forth discipline to be imposed, if any.

(f) For cases on which there has been no presidential action within five (5) working days after submission, the Judicial Appeals Board decision is deemed to be approved.

(g) All decisions approved and permitted to stand shall become effective immediately.

(h) Decisions shall be made in writing and made available to the student(s)/student organization on the first day following Judicial Appeals Board action and following acceptance by the president or his/her designee. In cases permitted to stand without presidential action, the decision shall be made available to the student(s)/student organization no later than the sixth (6th) working day following the submission for review of the decision of the Judicial Appeals Board.

(i) Application for additional review and modification of the Judicial Appeals Board and presidential decision may be made to the Board of Regents through the secretary of the Board of Regents. The Board of Regents, at its discretion, may agree to review the findings and decision of the president or the Judicial Appeals Board.

L. Alternate Hearing Procedure

1. In the event the University Judicial Board shall fail to convene and/or act within a reasonable time, the president shall be authorized to refer the case directly to the Judicial Appeals Board.

   In the event the Judicial Appeals Board shall fail to convene and/or act within a reasonable time, the president shall be authorized, after consultation with and approval by the Board of Regents, to appoint a hearing officer, not otherwise employed by the University, who shall conduct such hearings and perform the functions otherwise specified for the Judicial Appeals Board. The hearing officer shall submit his/her findings and recommendations to the president or his/her designee in the same manner and within the time as required for the Judicial Appeals Board.

2. Discipline by administrative action

   It is the policy and practice of the University to handle disciplinary cases administratively without involvement of the student/student organization judicial systems when the judicial bodies are not in sessions.

Section IV. Penalties for misconduct

Discipline is intended to be corrective and educational as well as punitive. It is intended that the student(s)/student organization will learn from disciplinary experience and develop a more mature attitude toward group living problems. The penalties which may be incurred include, but are not limited to, the following:

A. Penalties for students

1. Reprimand

   An official written statement of the University's disapproval of an individual or group action.

2. Administrative warning

   Will be issued to students for lesser offenses than those subject to administrative probation. A breach of conduct will be viewed not only as the breach of conduct itself but a violation of this warning, which may result in dismissal.

3. Administrative probation

   Defines the student’s status to be conditional and may require exclusion from some programs and curricular or extracurricular activities. In each case, the length and nature of the exclusions, if any, shall be determined according to the nature of the offense. Any breach of conduct while on administrative probation will be viewed not only as the breach of conduct itself, but a violation of probation which may result in dismissal.

4. Suspension

   Suspension is an involuntary separation of the student from the University which may extend for one semester, until a specified date, and/or until a stated condition is met.

5. Dismissal

   Dismissal, like suspension, involves separation from the University but it is for an indefinite period of time.

   In case of a judicial decision requiring that a commitment or action or other stated condition be met by a student, the person or body setting this condition shall be responsible for making their expectations clear to the student and for superintending and monitoring its implementation.

B. Penalties for Student Organizations

1. Reprimand

   An official written statement of the University’s disapproval of an individual or group action.

2. Administrative warning

   Issued to student organizations for lesser offenses than those subject to administrative probation. Any breach of conduct will be viewed not only as the breach of conduct itself, but a violation of this warning, which may result in suspension of said organization’s status as a student organization. The misconduct may be reported to said organization’s national office, if applicable.

3. Administrative probation

   Defines the student organization’s status to be conditional and may require exclusion from campus activities, forfeiting of student monetary allocations, and withdrawal of Campus Life status for a minimum of one semester. Any breach of conduct while on administrative probation will be viewed not only as the breach of conduct itself, but a violation of probation that may result in suspension of said organization’s status as a student organization.

4. Suspension or termination

   The involuntary withdrawal of status of the student organization from the University permanently, for a specified period of time, and/or until a stated condition is met. During this period the University will not in any way recognize nor support the continued operation of said organization. The student organization must re-apply to the Office of Campus Life for renewed recognition following any period of suspension. The suspension action shall be reported to said organization’s national office, if applicable.

   Action taken against a student organization also may result in separate action being taken against individual members of said group, when appropriate. In this case, the sections of the conduct code referring to student conduct will be applied.

Section V. Presidential Responsibility

A. Presidential Review

1. The authority to suspend or dismiss a student/student organization from the University for conduct in violation of University rules and regulations is vested in the president as the chief executive officer of the University or in his/her designated representative.
2. All disciplinary penalties assigned through the University judicial and review system that would result in suspension or dismissal of a student/student organization from the University shall be reviewed by the president or his/her designee.

3. The president or his/her designated representative may:
   (a) Accept the decision of the judicial review system, or
   (b) Reject the decision. If the decision rejected is:
      1) A dean of students decision, the rejection will constitute an automatic appeal to the University Judicial Board.
      2) A University Judicial Board decision, the rejection will constitute an automatic appeal to the Judicial Appeals Board.
      3) A Judicial Appeals Board decision, the procedure stated in Procedure of the Judicial Appeals Board, Item K, 3, b, c, will be followed.

B. Interim Suspension

The president, as the chief executive officer of the University, is directly responsible to the Board of Regents for the enforcement of the University policies, rules, and regulations and is charged with the maintenance of that degree of order and safety necessary to the successful continuation of the University's lawful mission, and he/she is further charged with the authority to protect the members of the University community and University property.

Although such authority has always existed in the Office of the President, it is herein made explicit that the president or his/her designated representative is authorized to suspend a student/student organization prior to a hearing and procedure through the University judicial process when in the judgment of the president or his/her designated representative, the misconduct of the student(s)/student organization threatens or endangers University property, and that such student(s)/student organization's continued presence on campus creates a clear and present danger to the safety of students, faculty, administrators, and University property and/or that constitutes an interference with the maintenance of the University's educational processes and missions.

The student(s)/student organization shall be notified of their suspension status orally, by written notice served on the student(s)/student organization, or written notice sent to the last address on record. Within five (5) days after the notice, the student(s)/student organization shall be provided with the opportunity for an informal hearing before the president or his/her designee. At this hearing, the student(s)/student organization shall be permitted to present their side of the story. After the hearing, the president or his/her designee may lift suspension and direct that a hearing follow within eight (8) days before the University Judicial Board, or maintain the student(s)/student organization on suspension status and direct that a hearing follow within eight (8) days before the University Judicial Board.

The above provisions concerning judicial power are the official policy of the University, subject to such specific amendments as shall hereafter be made and subject to those exceptions to these procedures implicit in the emergency powers of the president. Nothing in the above shall be construed as affecting the standard of conduct or rules of behavior as established by the Regents.

All publications of the University that contain rules and procedures—other than the above that describes the judicial structure or the procedures of student/student organization courts, Greek courts, or residence hall courts—shall not be construed as controlling those courts, but rather shall be merely descriptive of the system and procedures that the student(s)/student organization have themselves enacted as controlling their institutions.

C. Emergency Powers of the President

When faced with mass disruptions, activity of a violent and destructive nature, or other dangerous violations of University rules, the president may take note in a general statement of the seriousness of the threat to the University. As chief executive officer of the University, the president is charged with the maintenance of that degree of order necessary to the successful continuation of the University's lawful mission. Such responsibility carries with it the necessity for a certain degree of authority. Such authority has always existed in the Office of the President. It is herein made explicit but to the extent that the courts of the land may deem such authority to be inherent or implicit, it is not limited.

The president, after consultation with and approval of the Board of Regents, may:
   1. Impose and have enforced a curfew on all or portions of the campus of the University.
   2. Curtail or suspend services.
   3. Close the University or portions of the University entirely for the period of emergency.
   4. Suspend student(s)/student organizations and forbid their presence on campus if they have been sufficiently identified to him/her as participants in activities violative of University policy leading to the conditions described above. Suspensions shall continue for the period of emergency.
   5. Appoint a hearing board on an ad hoc or extraordinary basis to make a recommendation as to whether individual interim suspension shall be continued. Such a hearing board shall convene and make its recommendations within ten (10) days from the effective date of the interim suspension.

In making more explicit the authority of the president to take necessary actions in the interest of the University, the Board of Regents in no way restricts its own powers and prerogative to carry out its obligations and duties as imposed by the constitution and laws of the State of Michigan.
ALCOHOL AND DRUG ABUSE PREVENTION PROGRAM AND POLICY

UNIVERSITY ALCOHOL AND DRUG POLICY

The University is committed to promoting and maintaining a work and academic environment that is free from illegal alcohol and drug use and abuse, in accordance with all federal, state, and local laws. Students and employees are prohibited from reporting to work or working under the influence of alcohol or drugs. Employees may not consume, possess, distribute, or be under the influence of alcoholic beverages on University property or while on University business (except at University functions at which use of alcohol is approved). Employees, students, and campus visitors aged twenty-one (21) years or older, consuming alcohol at University functions or while on University business, where such use is approved, are expected to use alcohol responsibly and not engage in illegal, unprofessional, or disruptive behavior.

Students and campus visitors who have attained the legal drinking age of twenty-one (21) years of age may possess and consume alcoholic beverages only at approved University functions or in residence hall rooms of students who have attained the legal drinking age. Those under twenty-one (21) years of age are not permitted to consume or possess alcoholic beverages at any time.

Students, employees, and visitors are prohibited from possessing, consuming, manufacturing, dispensing, or being under the influence of illegal drugs or engaging in improper self medication while on University property or University business.

Any member of the University community who violates this policy is subject to both prosecution and punishment by civil authorities and to disciplinary proceedings by the University.

This policy is not designed to punish people for seeking rehabilitation. All information about those individuals who voluntarily avail themselves of drug or alcohol counseling or rehabilitation services will remain confidential. Seeking counseling or rehabilitation will not be used as a basis for disciplinary action or be used against an individual in any way.

University employees and students who violate this policy shall be informed about and referred to services to assist them in determining whether they are abusing drugs and alcohol or are chemically dependent. If a problem is found to exist, the individual will be referred to resources to assist him/her in overcoming the drug or alcohol abuse pattern. This referral or assessment shall not limit the University's ability to pursue appropriate disciplinary action, up to and including termination or expulsion, when an employee or student has violated this policy or any other University policy.

This policy shall not add to or supersede union contracts or established employee work rules.

HEALTH RISKS OF ALCOHOL, TOBACCO, AND OTHER DRUGS

Types of Drugs: Tobacco

- Cancer of the cheeks, gums, palate, tongue, lips, pancreas, bladder, lungs, and kidneys are substantially more common in smokers than non-smokers.
- An average of three times as many cavities of nonsmokers. Loss of teeth at a rate three times higher than nonsmokers.
- Peptic ulcers twice as common in smokers as nonsmokers.
- Increased chance of heart disease and stroke.
- Emphysema and chronic bronchitis.
- Higher incidence of infertility, lower birth weights, and smaller size of infants born to smokers.
- Physical and psychological dependence.

Health Risks: Alcohol

- Physical and psychological dependence.
- Impaired driving ability.—46,000 highway deaths in 1988—2 out of every 5 US citizens will be involved in an alcohol-related crash in their lifetimes.
- Increased family violence—child abuse and spouse abuse is frequently associated with alcohol use and abuse. 63% of women in one study of family violence reported that their husbands were drinking when they were violent.
- Increased chance of accidental death—alcohol is a contributing factor in at least 15,000 fatal and 6 million nonfatal injuries in non-highway settings.
- High risk sexual behavior is more likely and more frequent when under the influence of alcohol.
- Fetal Alcohol Syndrome is one of the 3 leading causes of birth defects and the only one that is preventable. It causes mental retardation, physical deformities, and heart defects and can be prevented by not drinking during pregnancy.
- Mental health problems are more frequent in children raised in homes with heavy or frequent use of alcohol.
- Irritation and inflammation of the esophagus, stomach, small intestines, and pancreas.
- Liver disorders including alcoholic hepatitis and cirrhosis.
- Nutritional deficiencies.
- Cardiovascular disease and inflammation of the heart.
- Cancer of the tongue, mouth, throat, esophagus, liver, and breast.
- Miscarriage and low birth rate.
- Brain damage.
- Sexual problems—increased desire but reduced ability to perform or reach climax for both men and women.
- Disintegration of family life.
- Behavior inconsistent with values (violence, personality changes, etc.)

Marijuana (including Hash, HashOil, Tetrahydrocannabinol, THC, Cannabis).
- Diminished: short-term memory; motivation and cognition; coordination and concentration; oral communication; reaction time; and motivation to achieve.
- Anxiety and panic reactions.
- Lung and respiratory system damage from exposure to smoke.
- Psychological dependence.

Cocaine (including "Crack" Cocaine).
- Extremely addictive physically and psychologically.
- Sudden death: 1 of 4 ways: collapsed respiratory system; arrested heartbeat; heart attack caused by narrowed blood vessels; or stroke caused by increased blood pressure.
- Increased risk taking.
- Seizures.
- Sleeplessness.
- Paranoia, delusions, and hallucinations—Cocaine psychosis.
- Mood swings with violent behavior.
- Malnutrition.
- Sexual dysfunction.
- Severe birth defects—physical damage and permanent emotional damage to babies born addicted to Cocaine.

Depressants (including tranquilizers, barbiturates, and Methaqualone).
- Physically and psychologically addictive.
- Extremely dangerous when mixed with alcohol—death.
- Respiratory depression can result in death.
- Sleep disturbances.
- Severe withdrawal symptoms.
- Liver damage and impaired liver function.
- Birth defects including brain tumors.
Narcotics (including Opium, Morphine, Codeine, Heroin, Methadone, Darvon, and Demerol):
- Physically and psychologically addictive.
- Painful withdrawal process.
- Central nervous system depression.
- Acquired Immune Deficiency Syndrome (AIDS) from sharing needles during use.
- Seizures, nausea, and vomiting.
- Hallucinations and unpredictable behavior.
- Malnutrition.
- Birth defects.

PCP (Phencyclidine):
- Paranoia—panic and fear of death lasting several days.
- Irregular heartbeat and breathing.
- Ongoing speech problems.
- Depression and hallucinations.
- Aggressive behavior.
- Impaired memory and perception.
- Unpredictable and sometimes intense mood disturbances and behavior changes.

Anabolic Steroids:
- Psychological and physical dependence.
- Violent behavior.
- Intense mood swings—paranoia—disorientation.
- Lack of awareness of the dangers associated with these drugs since they are often prescribed by physicians.
- Possible birth defects.

Minor Tranquilizers (including Xanax, Tranxene, Valium, Librium, Ativan, Serax, Miltown, Darlanac, Alcium, Restoris, etc.):
- Psychologically and physically addictive.
- Withdrawal symptoms include: tremors, rapid heart beat, blood pressure drop, headache, mood swings, tension, nightmares, nausea, 10% of sexual function, and apathy.
- Dangerous when combined with other tranquilizers or alcohol.
- Lack of awareness of the dangers associated with these drugs since they are often prescribed by physicians.

Assistance Available at EMU to Faculty, Staff, and Their Families:
Employee Assistance Program ............ (313) 487-1109
(Snow Health Center, Room 325)

Assistance Available at EMU for Students:
University Counseling Services
(at Snow Health Center) ............ (313) 487-1118
University Health Services Prevention
Office (at Snow) ............ (313) 487-2226

Alcohol and Drug Abuse Treatment Services Available in Southeastern Michigan:
Brighton/Livingston County
Brighton Hospital: .... (313) 227-6143

Chelsea
Chelsea Hospital Chemical Dependency
Services: .... (313) 475-4100

Detroit Metropolitan Area
Eastwood Clinics:
Belleville: ....... (313) 699-4212
Dearborn: ....... (313) 561-2790
Detroit (Downtown): ....... (313) 499-4314
Detroit (Gratiot & 6 Mi): ....... (313) 521-0808
Detroit (Gratiot & 8 Mi): ....... (313) 526-6000
East Detroit: ....... (313) 445-2210
Fraser: ....... (313) 792-5335
Harper Woods: ....... (313) 526-2276
Huntington Woods: ....... (313) 543-4680
Livonia: ....... (313) 425-4070
Redford: ....... (313) 537-1110
Trenton: ....... (313) 676-8282
Troy: ....... (313) 649-4480

Flint
Insight at Genesee Center ....... (313) 733-0900

Howell/Livingston County
Livingston Council Alcohol & Drug Services: .... (517) 546-7070

Jackson
Chelsea Hospital—Jackson Substance Abuse Services: .... (517) 787-6577

Saline
Saline Hospital—Greenbrook Recovery Center: .... (313) 429-1592

Tecumseh
Herrick Hospital Chemical Dependency Program: .... (517) 423-2141

Toledo
Toledo Hospital Alcohol & Drug Treatment Center: .... (419) 471-2300

Community and University Sanctions:
The laws of the state of Michigan and Eastern Michigan University’s policies and rules prohibit the consumption or possession for personal consumption of alcoholic beverages by persons under 21 years of age. Further, Michigan laws and University policies prohibit the sale, service or giving of alcoholic beverages to persons under the age of 21. Eastern Michigan University’s policies and rules, Local ordinances and laws, State laws and Federal laws also prohibit the unlawful possession, use and/or distribution of illicit drugs and alcohol. Violation of these policies, rules, ordinances, and laws may result in misdemeanor and/or felony convictions with the imposition of legal sanctions which may include fines, probation and/or imprisonment.

Unlawful possession, use, or distribution of alcohol illicit drugs may also lead to a referral to the appropriate local, state, and/or federal authorities for prosecution for a misdemeanor or a felony, depending on the nature of the offense. Violation of University policies and rules may result in:
- Students: suspension or expulsion from the University and/or mandatory attendance at substance abuse intervention programs.
- Faculty and staff: disciplinary action up to and including termination of employment.

Violations of local, state, or federal laws may result in:
Fines up to $4 million.
- Imprisonment up to life imprisonment for possession of more than 650 grams or trafficking in drugs such as Heroin and Cocaine.
- Forfeiture of personal and real property.
- Denial of federal benefits such as grants, contracts, and student loans.
- Loss of driving privileges.
- Required attendance at substance abuse education or treatment program.

EMPLOYEE REPORTING REQUIREMENT:

Under the Drug Free Schools and Communities Act Amendments of 1989, a faculty or staff member employed under a federal grant or contract must notify the University (Human Resources, Employee Relations [313-487-0083] or Academic Affairs—Personnel [313-487-0076]), in writing, of his or her arrest or conviction for violation of any criminal drug statute occurring in the workplace or while on University business no later than five days after such arrest or conviction.

REVIEW OF EMU’S ALCOHOL AND DRUG ABUSE PREVENTION PROGRAM:

The University will review its Alcohol and Drug Abuse Prevention Program every 2 years to determine its effectiveness and implement changes to the program as needed and to ensure that the disciplinary sanctions applied by the University are consistently enforced.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

In compliance with the Family Educational Rights and Privacy Act, 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.

1. The following are matters of public record and may be included in 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 of members of athletic teams, dates of attendance, degrees, and awards received, and the most recent previous educational agency or institution attended by the student.

2. 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 Campus Life Office, 221 Goodison Hall.

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 Registration Office within fourteen (14) days after each term begins.

UNIVERSITY CAMPUSES

Eastern Michigan University occupies 420 acres on the northwestern side of the city of Ypsilanti on high ground overlooking the Huron River valley.

The 217-acre main campus encompasses historic and new academic buildings, residence halls and physical education facilities including Bowen Field House and Olds Student Recreation Center. Nearby outdoor general recreational fields include the equivalent of four softball diamonds or two football fields—all under light for nighttime use—17 tennis courts, eight of which are lighted, and softball playing fields for women’s sports.

The Clarence M. Loesell Field Laboratory, a 21-acre tract west of the main campus, was dedicated in 1958 in honor of the longtime head of the Natural Science Department (now the Biology Department). It provides an undeveloped, natural habitat for the study of wildlife, flora and fauna for teaching of natural sciences.

The west campus was created in 1965 and 1967 by the addition of 142 acres of land to allow expansion of the academic campus into the site of athletic areas. It includes a baseball stadium, football stadium, all-weather running track, six intramural fields, two practice football fields, apartment complexes and paved parking.

The Kresge Environmental Education Center at Fish Lake in Mayfield Township, Lapeer County, was created in 1965 as a resident field study center for experimentation and dissemination of environmental education programs. The 241-acre site is surrounded on three sides by 4,000 acres of the Lapeer State Game Area and has a wide variety of topography, a natural lake, a man-made impoundment and a bog for aquatic studies. Facilities include a 64-person dormitory, a dining commons that can feed 200, a remodeled one-room schoolhouse, and four modular units that house the center office, provide staff housing and a lab-classroom.

UNIVERSITY BUILDINGS

University buildings continue to increase in number to serve the needs of educational growth and change. Remodeling of old buildings is continuous to update facilities and to accommodate departmental reorganization as well as growth. Almost all of EMU’s major classroom, administration, and residence halls are named in honor of early administrators and dedicated faculty who laid the foundation for educational advancement or for donors who have assured the University’s future.

Frederick M. Alexander Music Building, completed in 1980, houses the departments of Music and Foreign Languages and Bilingual Studies. It features three large rehearsal rooms (band, choir, and orchestra), a 150-seat recital hall, an organ teaching recital facility, and 64 individual practice rooms. Designer/architect Robert C. Wakely, Sr. employed the latest in acoustical and sound isolation techniques to provide for music instruction.

The Business and Finance Building, adjacent to Pease Auditorium, is utilized by the Division of Business and Finance to administer the business operations of the University.

Richard G. Boone Hall, built in 1914 as an administration building, now houses the College of Education offices and classrooms. It is named for the ninth president of the Normal College (1893-1899).

Wilbur P. Bowen Field House, completed in 1955 and named for the founder and long-time head of the Department of Physical Education, is the home of the Eagle basketball teams. It also has an eight-laps-to-the-mile track, locker facilities, and a hard surfaced infield. Additions in recent years to both the south and north ends of the building have added to its ability to serve the needs of the University community.

Walter O. Briggs Hall was the first unit of the University’s field house. The $150,000 grant that provided the initial building was given by Briggs when he was owner of the Detroit Tigers.
The University Library, opened in 1967, has provided the University with more than five times the floor space and double the book capacity of the original Mark Jefferson Library (in what is now Ford Hall). The seating capacity is 1,800 and most library materials are on open shelves. The lower floors house the Media Services Center and the Instructional Support Center and include a computer laboratory for student use.

R. Clyde Ford Hall, created as the Mark Jefferson Library, bears the name of the modern literature professor who headed the library during his tenure from 1903-1940. It has been remodeled twice and since 1982 has provided office and classroom space and art galleries for the Art Department. The Department of Communication and Theatre Arts also holds most of its production classes in this building to utilize two television studios on a lower floor. The building was opened in 1929 and first remodeled in 1967.

Bertha M. Goodison Hall, dedicated in memory of the 1900-1937 Department of Art professor and head, houses the offices of Campus Life, Career Services, Continuing Education, Dean of Students, Faculty Council, Foreign Student Affairs, International Studies, Minority Affairs, Special Student Services, Student Government, student organizations, Student Media, Upward Bound, and the Women's Commission.

Mark Jefferson Hall, new in 1970 and named for the internationally-known professor of geography (1896-1928), has completely equipped modern laboratories for the departments of Chemistry, Biology and Psychology, as well as classrooms and offices for teaching personnel.

Julia Anne King Hall, is the base of operations for the College of Health and Human Services, which uses a limited number of classrooms in this building as well as classrooms in Roosevelt Hall. It houses the offices of the dean of the College of Health and Human Services and the departments and programs of Nursing Education, Occupational Therapy, Social Work, Health Administration, Clinical Laboratory Sciences, and Gerontology.

Other offices are those of the Institute for the Study of Children and Families, the National Center of Teaching and Learning, the director of Affirmative Action and the administrative offices of Human Resources. University Radio Station WEMU also is in this building.

Charles McKenny Hall, also named for a past president of EMU, is the student union and social center of the University. Completely remodeled in 1964-65, it is double its original size and now includes cafeteria and dining service, a snack bar, the Eastern Michigan University Bookstore, a bowling alley, a billiard room, offices for student organizations, lounges, meeting rooms, and a large ballroom. A major renovation to the building was completed in Fall 1992.

The Ols-llobb Student Recreation Center was dedicated in the fall of 1982. The $18.2 million facility was named for the former faculty member and the former head of the intramural program on campus in 1921, and former Regent Richard Robb. It is funded by student fees and provides recreation and intramural facilities for the entire campus community. Its most distinctive feature is the 50-meter swimming pool which is one of the largest indoor pools in Michigan and has 7, 8- and 10-meter diving platforms.

The Penent Research Laboratory, completed in 1987, is utilized by the Penent Research Association for scientific paint research activity.

The Parking Structure, west of Bowen Field House, will accommodate 800 cars and houses the University Public Safety Department offices. It has direct access to Washington via Oakwood Avenue, is adjacent to Pitman and Ford roads, which bisect the campus, and is accessible from North Arbor River Drive via West Tower Drive and Oakwood Avenue. Numerous parking lots for students and faculty surround the campus.

Frederick H. Pease Auditorium, completed in 1914 and named for the long-time head of the Conservatory of Music, is the center for many University and civic activities as well as music events. In the auditorium is the $100,000 Frederick Alexander Memorial Organ. Pease is currently being renovated.

John D. Pierce Hall, which in 1948 replaced the original building on campus, honors the first superintendent of public instruction in the state of Michigan. It houses Admissions and Financial Aid, the Office of the Registrar, Equity Programs, Cashier's Office, and Student Accounting.

Pray-Harrold Hall provides classrooms and offices for the departments of English Language and Literature, History and Philosophy, Mathematics, Computer Science, Sociology, Economics, Political Science, and Women's Studies in the College of Arts and Sciences. The Administrative Computer Center is located on the first floor. Pray-Harrold recognizes the services of Carl E. Pray, head of the History Department from 1913-1927, and Charles F. Harrold, professor of English literature from 1925-1943.

Daniel L. Quirk Jr. Dramatic Arts Building, original funds for which were made available by the Quirk family of Ypsilanti, opened in 1959. The building provided an instructional theatre seating 381, a flexible laboratory theatre, scene and costume shops, radio facilities, an outdoor amphitheater, classrooms and offices for drama, speech and radio activities. In 1966, a classroom-office wing was added to accommodate increased needs in all areas, especially TV broadcasting and film. In 1983, the Department of Communication and Theatre Arts and the University launched a major capital fund raising campaign to enclose the 200-seat outdoor amphitheater and expand the capabilities of technical studios, costume and scene shops. Construction of these additions was complete in the summer of 1985. The Spohr Theatre, named for former EMU President Harold Spoonberg, was added a few years later.

The Horace H. Rackham School of Special Education, constructed in 1938 as one of many educational projects of the Detroit lawyer and philanthropist, became the first building of its kind in the state dedicated to the needs of special children. The Special Education department, a speech and hearing clinic, a diagnostic prescriptive clinic for learning-disabled children and their families, and facilities for physical therapy are located in the building.

Roosevelt Hall, built on campus in 1925 as a laboratory school for training student teachers and providing private education for children of area residents, has been remodeled to house the departments of Human, Environmental and Consumer Resources, Military Science and Health Administration. It was named for President Teddy Roosevelt are located in the building.

The Sculpture Studio, located on the west campus, is utilized by the Art Department.

William H. Sherzer Hall, erected in 1903 and named for the professor of geology and head of the Department of Natural Sciences (1892-1932), now provides offices and classrooms for the Art Department and contains the University's observatory.

J. M. B. Stil1 Hallhouses classrooms and offices of the College of Technology, founded in 1980. Its large lecture halls are available to other departments. The Art department retains offices and facilities for the ceramics program.

Glenadine C. Snow Health Center, named for the first medical director of health services (1915-1947) who created the plans for the building, opened in 1959, includes a pharmacy, medical laboratory, X-ray department, physicians' clinical offices, nurses' consulting rooms, examination and treatment areas, mental health counselors' offices, and the Employee Assistance Program. The Children's Center is on the lower level.
Mary Ann Starkweather Hall, erected in 1897 and designated as a student Christian center by the Ypsilanti donor, was remodeled and modernized in 1961. It currently houses the Graduate School.

The Edwin A. Strong Physical Science Building, opened in 1957, houses the departments of Physics and Astronomy and Geography and Geology, providing both laboratory and large lecture halls. Strong was head of the Physical Science Department between 1885-1919.

The Joseph E. Warner Physical Education Building, completed in 1964, is immediately adjacent to Bowen Field House and connected to the Olds Student Recreation Center. It houses offices of the Department of Health, Physical Education, Recreation and Dance, classrooms, gymnasiums, special purpose rooms, and a swimming pool designated for intramural use. Warner, for whom the building is named, was state representative for Washtenaw County, 2nd District.

Adonijah S. Welch Hall, erected in 1896 and the oldest standing building on campus, is named for the first head of the University. It was originally a training school for teachers and a public school and until 1982 housed University business offices. This facility now houses the main administrative offices of the University, Alumni Relations, University Development, Public Information, and State/Federal/Community Relations.

The Corporate Education Center opened in May 1989. It and the nearby Huron Golf Club are owned and operated by EMU. The adjoining Radisson on the Lake Hotel is privately owned. The Corporate Education Center has 38,000 square feet of conference and seminar meeting space, is designed to serve multiple needs, and has the most advanced communications and audio-visual equipment available. The development includes a 133-acre, eighteen-hole championship golf course.

The Gary M. Owen Building, located on Michigan Avenue in downtown Ypsilanti, houses the College of Business and provides classrooms and offices for the departments of Accounting, Finance, Management, Marketing, and Operations Research and Information Systems. The building also contains a library, computer laboratories, and facilities for other programs operated by the College of Business. The building is named for Gary M. Owen, who was Speaker of the Michigan House of Representatives at the time of the building's construction.

Athletic Fields

Two major athletic facilities, in addition to main campus physical education buildings, attract students to the west campus for football and baseball events. Both stadiums also are sites of community, state, and national events such as annual drum corps competitions, Special Olympics, and state high school baseball and football playoffs.

Rynearson Stadium, named for Elton J. Rynearson, Sr., who coached football for 26 years, is the football stadium. Rynearson was renovated in 1992 when additional seats were added to bring the capacity to 30,000. A new locker room and an addition to the press box were also completed.

The Ronald E. Oestrike Stadium, which in 1968 replaced Briggs Field (now the parking lot adjacent to McKenny Union), has a covered grandstand seating 2,500. It is one of the finest baseball facilities in intercollegiate competition.

### Administrative Officers

#### The Cabinet

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>President</td>
<td>William E. Shelton</td>
</tr>
<tr>
<td>Executive Vice President for Academic Affairs</td>
<td>Roy Wilbanks</td>
</tr>
<tr>
<td>Provost and Vice President for Academic Affairs</td>
<td>Ronald W. ColliNs</td>
</tr>
<tr>
<td>Vice President for Business and Finance and</td>
<td>Patrick J. Doyle</td>
</tr>
<tr>
<td>Treasurer to the Board of Regents, Acting</td>
<td></td>
</tr>
<tr>
<td>Vice President for University Marketing and</td>
<td>Laurence N. Smith</td>
</tr>
<tr>
<td>Student Affairs</td>
<td></td>
</tr>
<tr>
<td>Executive Associate to the President and</td>
<td></td>
</tr>
<tr>
<td>Secretary to the Board of Regents</td>
<td></td>
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<tr>
<td>Executive Director, University Planning</td>
<td></td>
</tr>
<tr>
<td>Budgeting, and Analysis</td>
<td>George A. Johnston</td>
</tr>
<tr>
<td>University Attorney</td>
<td>Kenneth A. McKanders</td>
</tr>
</tbody>
</table>

#### University Planning, Budgeting, and Analysis

- Director of Budget Management: Alvin S. Levett
- Director of Institutional Analysis and Reporting: Paul N. Moniodis
- Coordinator of Management Information Systems: John Senko

#### Academic Affairs Division

##### Academic Administration

- Associate Provost: Judith A. Johnson
- Associate Vice President for Academic Affairs and Director of Academic Assessment: Donald H. Binnion
- Assistant Vice President for Academic Affairs: David D. Tammany
- Administrative Associate to the Provost: Mary C. Lilley

##### Graduate School/Office of Research Development

- Dean: Ronald E. Goldenberg
- Associate Dean, Interim: Jeanne M. Clerc
- Assistant Dean, Interim: James T. Bushey
- Associate Dean and Director, Office of Research Development: David L. Clifford
- Associate Director: Michelle Barnes

##### College of Arts and Sciences

- Dean: Barry Fish
- Associate Dean: Barbara Richardson
- Associate Dean, Interim: James Walz
- Administrative Associate II: Velma G. Clarke

##### Departments

- African American Studies, Head: Ronald C. Woods
- Art, Head: John E. VanHaren
- Biology, Head: Douglas Y. Shapiro
- Chemistry, Head: Judith Levy
- Communication and Theatre Arts, Head: Dennis M. Beagen
- Computer Science, Head: George E. Haynam
- Economics, Head: Young-Tob Chung
- English Language and Literature, Head: Marcia A. Dalbey
- Foreign Languages and Bilingual Studies, Head: Steven D. Kirby
- Bilingual Bicultural Program, Director: Phyllis A. Clemens
- Noda Geography and Geology, Head: Andrew A. Nazzaro
- History and Philosophy, Head: Margot Duley
- Mathematics, Head: Don R. Lick
- Music, Head: James B. Hause
- Physics and Astronomy, Head: Dan Trochet
- Political Science, Head: Joanna Scott
- Psychology, Head: Kenneth Rusiniak
- Sociology, Anthropology, and Criminology, Head: Gregg Barak
College of Business
Dean ........................................... Stewart L. Tubbs
Associate Dean, Interim ............................... Susan Moeller

Departments
Accounting, Head ........................................... Mohsen Sharifi
Finance and Computer Information
  Systems, Head ................................................... Asrat Tessema
Management, Interim Head ............................. Nick Blanchard
Marketing, Head ................................................. Robert Dodge

College of Education
Dean ....................................................... Jerry H. Robbins
Associate Dean ............................................. Donna Schmitt
Associate Dean ............................................... Robbie A. Johnson

Departments
Health, Physical Education, Recreation, and Dance, Head ........................................ Michael Bretting
Leadership and Counseling, Head ...................... Martha Tack
Special Education, Head ................................... Kathleen S. Quinn
Teacher Education, Head ..................................... James D. Riley
Center for Community Education, Director ............ Jaclynn Tracey

College of Health and Human Services
Dean .......................................................... Elizabeth C. King

Departments
Associated Health Professions, Head .......................... Stephen A. Sonstein
Health Administration, Director ........................... Richard L. Douglass
Clinical Laboratory Sciences, Interim Director ............ Gary Hammerberg
Occupational Therapy, Director ............................. Ruth Hansen
Human, Environmental, and Consumer Resources, Head ........................................... Elizabeth J. Rhodes
Nursing Education, Head ..................................... Regina Williams
Social Work, Head .............................................. Donald M. Loppnow

College of Technology
Dean ........................................................... Thomas K. Harden

Departments
Business and Industrial Education, Head .................... Ann M. Remp
Industrial Technology, Head ..................................... Everett N. Israel
Interdisciplinary Technology, Head .......................... Paul D. Kuwik
Military Science, Head ........................................ LTC David R. Klubeck

Academic Advising Center
Director .......................................................... Ann Kettles
Associate Director .............................................. Patricia Williams
Assistant Director .................................................. Charles Fulford
Assistant Director ................................................. Kevin Hurlahe

Academic Records and Registration
Director .......................................................... Ann Kettles
Assistant Director .................................................. Sherry Winterson

Continuing Education
Dean ........................................................... Paul T. McKelvey
Associate Dean ............................................... Arthur N. McCafferty
Director, Academic Programs Abroad ......................... George J. Klein
Director, Marketing and Special Programs ...................... Neeta M. Delaney
Coordinator, Independent Study .............................. Michael McPhillips
Coordinator, Adventures in Education ......................... Karen Cline
Director, Upward Bound ....................................... Hildred J. Lewis

Associate Director, Upward Bound ............................. Laura Foster
Coordinator, Weekend University ............................. Arthur Hoover

Learning Resources and Technologies
Dean ........................................................... Morell D. Boone
Associate Dean, Learning Technologies ....................... Jennie M. Howard
Learning Resources, Head ..................................... Sandra G. Yee

World College
Director .......................................................... Raymond E. Schaub
Associate Director ................................................. Geoffrey M. Voght

National Institute for Consumer Education
Director .......................................................... Rosella Bannister

EXECUTIVE DIVISION
Assistant Executive Vice President ............................ Kathleen Tinney
Director, Business and Finance ..................................... Lee Lien

Alumni Relations
Director .......................................................... George Beaudette

Centers for Corporate Learning (Center for Organizational Risk Reduction, Center for Quality)
Director .......................................................... Walter DiMantova

Center for Entrepreneurship
Director .......................................................... Patricia Weber

Center for Public Service (ICARD)
Director .......................................................... Charles Weber

Corporate Education Center
Director .......................................................... Marcia D. Harrison-Harris

Development
Associate Executive Vice President ............................ Thomas S. Linn
Director, Major Gifts and Development ........................ Beverly J. Farley
Programs .......................................................... Bruce C. Patterson

Human Resources
Executive Director .............................................. Theodore Heidloff
Director, Employment and Affirmative Action ................ Tamara Fackler
Director, Compensation Programs ............................ Craig Reidman
Director, Benefit Programs ...................................... Jeanette Hassan
Director, Employee Relations ..................................... Kevin Smart

Huron Golf Club
Director .......................................................... Thomas Pendlebury

Intercollegiate Athletics
Director .......................................................... Tim Weiser
Associate Director ................................................. Carole Huston
Assistant Director-Business ...................................... Bruce Zylstra
Sports Information Director ......................................... James L. Streeter

Legal Affairs
University Attorney .............................................. Kenneth A. McKandies

Public Information
Director (Acting) .................................................. Susan Bairley

Risk Management
Director .......................................................... Mary Brooks

State, Federal, and Community Relations
Director .......................................................... Doris A. Komblevitz

University Computing
Director .......................................................... S. Alan McCord
Manager, Applications Development and Support .................. Gary J. Carlson

Manager, Applications Development and Support ............ Lynn Dixon
Manager, Operations Services .................................... Lee Hancock
Manager, Technical Services ....................................... Sam Creciun
Manager, User Support Services ................................... Wayne L. Starr

University Publications
Director .......................................................... Candace Webster
### University Marketing and Student Affairs Division

**Admissions**
- Director: M. Dolan Evanovich
- Assistant Director, Internal Operations: MaryAnn Schichtman
- Assistant Director, Management Operations: Michael O’Connor
- Assistant Director, Outreach Operations: Alberto Perales

**Equity Programs**
- Director: Lynette Findley
- Coordinator: Patrick Pich

**Financial Aid**
- Director: Judy B. Tatum
- Associate Director: Bernice Lindke
- Assistant Director, Operations: Elaine Kinloch

**Campus Life**
- Director: Glenn Frank Miller
- Program Coordinators: William Barnett, Shelley Wilson

**Career Services Center**
- Director: J. Michael Erwin
- Associate Director: Karen Simpkins
- Career Planning Manager: Joanne Burns
- Career Development Associates: Gloria August, Alicia Ortez, Theo Hamilton

**Career Development Assistant**
- Horace Thomas

**Corporate Relations Manager**
- Barbara Jones

**Employee Relations Associate**
- Kenneth L. Meyer

**Assistant Manager of Operations**
- James Locke

**HealthCare**
- Clinical Administrator: Diane Sobell
- Staff Physicians: James M. Reaume, Brian Reaume

**Counseling**
- Associate Director: Rosalyn Barclay

**Children’s Institute**
- Director: Linda Buch
- Coordinator of Services: Lorraine Paffenhofen

**Housing**
- Director: Rebecca J. Figura
- Manager, Residence Halls: Brian Fitzgerald
- Facilities Manager: Neal Belitzky
- Manager, University Apartments: Michael Constant

**Dining Services**
- Director: Michael Crabb
- Purchasing: Ann Klaes
- Senior Manager: Larry Gates

**McKenny Union/Conferences**
- Director: Ceil Paulsen
- Manager, Sales/Scheduling: P.J. Moffett

**Auxiliary Enterprises**
- Director: Sandra Williams

**Recreation/Intramurals**
- Director: Robert England
- Associate Director: James Olsen
- Assistant Directors: Lou Gianino, Kristi Jacobs, Jack Moffett

**Student Media**
- Director: Christine Colcer

**University Marketing**
- Acting Director: Dennis Lefond
- Manager, Video Production: John Rice
### FACULTY AND STAFF

**A**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
<th>Institution/Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbott, Richard H.</td>
<td>Professor, History and Philosophy. PhD</td>
<td>University of Wisconsin</td>
</tr>
<tr>
<td>Abdullah, Dewa A.</td>
<td>Associate Professor, Economics. PhD</td>
<td>University of Kentucky</td>
</tr>
<tr>
<td>Abramson, Armand R.</td>
<td>Professor, Music. MM, Eastman School of Music</td>
<td></td>
</tr>
<tr>
<td>Adams, John R.</td>
<td>Professor, Health, Physical Education, Recreation, Dance.</td>
<td>PhD, University of Michigan</td>
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<tr>
<td>Adams, Anthony</td>
<td>Assistant Professor, Sociology, Anthropology, and Criminology. PhD, University of Michigan</td>
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<td>Adams, Leah D.</td>
<td>Professor, Teacher Education. PhD</td>
<td>University of Michigan</td>
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<td>Aebersold, JoAnn</td>
<td>Professor, Foreign Languages and Bilingual Studies. PhD</td>
<td>University of Michigan</td>
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<td>Albrandt, Gisela E.</td>
<td>Professor, Mathematics. PhD</td>
<td>University of Illinois at Chicago</td>
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<tr>
<td>Ahmad, S. Imtiaz</td>
<td>Professor, Computer Information Systems. PhD</td>
<td>University of Ottawa</td>
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<tr>
<td>Ahmed, Anjum S.</td>
<td>Senior Programmer Analyst, University Planning, Budgeting, and Analysis. MBA, Eastern Michigan University</td>
<td></td>
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<tr>
<td>Al-Khafaji, Mahmoud</td>
<td>Assistant Professor, Mathematics. PhD</td>
<td>New Mexico State University</td>
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<tr>
<td>Aldridge, Henry B.</td>
<td>Professor, Communication and Theatre Arts. PhD</td>
<td>University of Michigan</td>
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<td>Allen, Nancy</td>
<td>Assistant Professor, English Language and Literature. PhD</td>
<td>Purdue University</td>
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<tr>
<td>Allen, Irene A.</td>
<td>Professor, Teacher Education. EdD</td>
<td>Ball State University</td>
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<tr>
<td>Alsasfar, Falah</td>
<td>Manager, Technical Services, Learning Resources and Technologies. MLS, Western Michigan University</td>
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<td>Ametrano, Irene M.</td>
<td>Professor, Leadership and Counseling. EdD, Rutgers University</td>
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<td>Amos, Charles N.</td>
<td>Professor, Music. PhD</td>
<td>University of Iowa</td>
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<td>Anagnostou, Taki J.</td>
<td>Professor, Interdisciplinary Technology. PhD</td>
<td>North Dakota State University</td>
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<td>Anderson, Marvin C.</td>
<td>Professor, Art. MFA, Cranbrook Academy of Art.</td>
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<td>Anderson, Roberta</td>
<td>Assistant Professor, Special Education. MA, Eastern Michigan University</td>
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<td>Andrew, Ann</td>
<td>Assistant Professor, Learning Resources and Technologies. MALS, University of Michigan</td>
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<td>Angle, James B.</td>
<td>Professor, English Language and Literature. MA, Kansas State University</td>
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<td>Antiochla, Sergio</td>
<td>Associate Professor, Computer Information Systems. MBA, Wayne State University</td>
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<td>Aristar-Dry, Helen</td>
<td>Professor, English Language and Literature. PhD, University of Texas at Austin</td>
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<td>Arrington, Phillip K.</td>
<td>Professor, English Language and Literature. PhD, University of Louisville</td>
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<td>Atchinson, Bernard J.</td>
<td>Assistant Professor, Occupational Therapy. MEd, Georgia State University</td>
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<tr>
<td>August, Gloria</td>
<td>Career Development Associate, Career Services Center. BA, Eastern Michigan University</td>
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<tr>
<td>Avedon, Barry</td>
<td>Professor, Art. MFA, Rochester Institute of Technology</td>
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**B**

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<tr>
<th>Name</th>
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<th>Institution/Program</th>
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<tbody>
<tr>
<td>Bach, Catherine E.</td>
<td>Associate Professor, Biology. PhD</td>
<td>University of Michigan</td>
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<td>Baddie, Joseph</td>
<td>Instructor, Learning Resources and Technologies. MLS, University of Michigan</td>
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<td>Badl, Larry L.</td>
<td>Professor, Mathematics. PhD</td>
<td>Oregon State University</td>
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<td>Barley, Susan M.</td>
<td>Director, Public Information. B.A. University of Michigan</td>
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<td>Bay, Ranjit S.</td>
<td>Professor, Teacher Education. EdD, Wayne State University</td>
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<tr>
<td>Baldwin-Morgan, Amelia A.</td>
<td>Assistant Professor, Department of Accounting. PhD, Virginia Polytechnic Institute and State University</td>
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<tr>
<td>Banks, Gary</td>
<td>Professor, Health, Physical Education, Recreation, and Dance. JD, Detroit College of Law</td>
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<td>Barach, George J.</td>
<td>Associate Professor, Special Education. EdD, Wayne State University</td>
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<td>Barak, Gregg</td>
<td>Department Head, Professor, Sociology, Anthropology, and Criminology. PhD, University of California-Berkeley</td>
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<tr>
<td>Barclay, Rosalyn L.</td>
<td>Associate Director, Counseling Services. PhD, Wayne State University</td>
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<tr>
<td>Barnes, James</td>
<td>Associate Professor, Business and Industrial Education. EdD, Virginia Tech</td>
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<td>Barnes, Michelle</td>
<td>Associate Director, Office of Research Development. MPA, Eastern Michigan University</td>
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<td>Barnett, William D.</td>
<td>Program Coordinator, Campus Life. MA, Eastern Michigan University</td>
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<tr>
<td>Bartle, Robert</td>
<td>Professor, Mathematics. PhD, The University of Chicago</td>
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<tr>
<td>Barton, Daryl L.</td>
<td>Assistant Professor, Law. JD, University of Michigan</td>
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<tr>
<td>Beagen, Dennis M.</td>
<td>Department Head, Professor, Communication and Theatre Arts. MA, University of Michigan</td>
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Tanner, Sandra (1974), Administrative Assistant, Center for Quality.
BS, Appalachian State University

Tatum, Judy B. (1978), Director, Financial Aid.
PhD, Southern Illinois University

Teal, Mary D. (1968), Professor, Music.
PhD, University of Michigan

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Teherani, Aby (1990), Associate Professor, Computer Science.
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Terry, Janice J. (1968), Professor, History and Philosophy.
PhD, University of London

Tessmer, Asrat (1985), Department Head, Professor, Finance and Computer Information Systems.
PhD, University of Iowa

Tew, Michael (1989), Assistant Professor, Communication and Theatre Arts.
MA, Eastern Michigan University

Thalhofer, Nancy N. (1969), Assistant Professor, Sociology, Anthropology, and Criminology.
PhD, University of Michigan

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Thompson, Thomas Bradley (1988), Supervisor, Copy Services, Learning Resources and Technologies.
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Thomsen, J. Marshall (1986), Associate Professor, Physics and Astronomy.
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Thornton, James (1991), Assistant Professor, Economics.
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Tinney, Kathleen D. (1968), Assistant Vice President, Executive Division.
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PhD, University of Kansas

Tomkins, Colleen (1976), Manager, Customer Service Operations, Housing and Food Service.
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Tornquist, Wade J. (1986), Associate Professor, Chemistry.
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Torres, Roberto (1991), Assistant Professor, Health Administration.
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Tubbs, Stewart L. (1986), Dean, College of Business; Professor, Management.
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White, Bette C. (1970), Dean of Students.
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Wojcik-Andrews, Ian (1990), Assistant Professor, English Language and Literature.
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Woodland, Linda M. (1982), Associate Professor, Department of Accounting.
   PhD, Purdue University
Woodland, Bill M. (1981), Associate Professor, Economics.
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Woodley, Jon K. (1967), Professor, Physics and Astronomy.
   PhD, University of Michigan
Work, Stewart D. (1964), Professor, Chemistry.
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   DMA, University of Michigan
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Youssef, Zaidhoor L. (1965), Professor, Psychology.
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Yu, Shih-An (1967), Professor, Biology.
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Zahraa, Michael C. (1966), Professor, Art.
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Ziefer, Marjorie (1981), Professor, Social Work.
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EMERITUS FACULTY

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Anderson, Robert L., BA, MA, PhD (1957-89) Professor Emeritus, Psychology
Angelocci, Angelo, ABA, MA, PhD (1965-87) Professor Emeritus
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Brierson, Clifford, BA, MA (1951-80) Associate Professor Emeritus, Curriculum and Instruction
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Boyd, Janet Scott, BSN, MA, PhD (1976-88) Professor Emeritus, Department Head, Nursing Education
Bredlove, Charles B., BS, MS, EdD (1964-77) Professor Emeritus, Physics and Astronomy
Brower, George, BS, MA, PhD (1954-83) Professor Emeritus, Educational Leadership
Brown, Donald F., BA, MS, PhD (1956-83) Professor Emeritus, Biology
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Clone, Jean, BS, MS (1963-92) Associate Professor Emeritus, Health, Physical Education, Recreation and Dance
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Cooper, Virginia A., BA, MA (1946-75) Associate Professor Emeritus, English Language and Literature
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Dart, Jane M., BFA, MA (1942-78) Associate Professor Emeritus, Art
Dellas, Marie, SS, MEd, PhD (1969-91) Professor Emeritus, Teacher Education
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Duncan, Charles H., EdD, PhD (1965-84) Professor Emeritus, Business and Industrial Education
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Fauman, S. Joseph, BA, MA, PhD (1958-86) Professor Emeritus, Sociology
Fennel, William E., BA, MA, PhD (1970-93) Professor Emeritus, Biology
Fenwick, Ruth G., BSM, MA (1952-74) Associate Professor Emeritus, Music
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Fielder, Anita L., BEd, MS, SpEd (1955-80) Professor Emeritus, Home Economics
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Fitch, William D., BS, MS, PhD (1947-76) Professor Emeritus, Music
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Found, R. Elaine, BA, MS, PhD (1951-79) Associate Professor Emeritus, Human, Environmental, and Consumer Resources
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Garfield, Juanita, AB, MA, EdD (1968-85) Professor Emeritus, Teacher Education
Gaston, Hugh P., AB, MS (1963-81) Assistant Professor Emeritus, Guidance and Counseling
<table>
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<tr>
<th>Name</th>
<th>Title</th>
<th>Degrees</th>
<th>Years</th>
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<tr>
<td>Geffen, Lawrence</td>
<td>BEd, MA, PhD (1968-93)</td>
<td>Associate Professor Emeritus, Special Education</td>
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<td>Gesler, Ralph A.</td>
<td>BS, MA (1952-74)</td>
<td>Associate Director Emeritus, Field Services</td>
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<td>Gessert, Walter L.</td>
<td>BS, MS, PhD (1961-86)</td>
<td>Professor Emeritus, Physics and Astronomy</td>
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<td>Gez, R. Stanley</td>
<td>BS, MA, EdD (1954-77)</td>
<td>Dean Emeritus, College of Education; Professor Emeritus, Teacher Education</td>
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<td>Gibbons, James R.</td>
<td>BS, MS, PhD (1967-88)</td>
<td>Associate Professor Emeritus, Economics</td>
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<td>Gilden, Ralph F.</td>
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<td>Dean Emeritus, Student Activities and Admissions; Associate Professor Emeritus, Industrial Education</td>
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<td>Giles, Richard A.</td>
<td>BS, MS, PhD (1947-74)</td>
<td>Professor Emeritus, Department Head, Biology</td>
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<td>Glasgow, James H.</td>
<td>BEd, MA (1939-70)</td>
<td>Dean Emeritus, Graduate School, Department Head and Professor Emeritus, Geography and Geology</td>
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<td>Godfrey, Elaine, BS</td>
<td>MA (1962-83)</td>
<td>Associate Professor Emeritus, Art</td>
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<td>Gogins, Edmond W.</td>
<td>AB, MS (1946-76)</td>
<td>Professor Emeritus, Mathematics, Instructional Computer Service</td>
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<td>Goldsmith, William E.</td>
<td>BA, MA, EdD (1962-83)</td>
<td>Assistant Professor Emeritus, Teacher Education</td>
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<td>Goosey, Bob L.</td>
<td>BS, MA, PhD (1959-93)</td>
<td>Associate Professor Emeritus, Mathematics</td>
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<td>Green, Edward, AB</td>
<td>AM, PhD (1963-86)</td>
<td>Professor Emeritus, Sociology</td>
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<td>Green, Mary A.</td>
<td>BA, MA, PhD (1961-92)</td>
<td>Professor Emeritus, Health, Physical Education, Recreation and Dance and Associate Dean, College of Education</td>
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<tr>
<td>Green, Phyllis Young</td>
<td>BA, MA (1972-92)</td>
<td>Assistant Professor Emeritus, Human, Environmental and Consumer Resources</td>
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<td>Grinstead, L. Kenneth</td>
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<td>Professor Emeritus, Leadership and Counseling</td>
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<td>Haddan, Eugene E.</td>
<td>BA, MA, EdD (1965-88)</td>
<td>Professor Emeritus, Teacher Education</td>
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<td>Hansen, B.joy</td>
<td>BS, MS (1972-92)</td>
<td>Assistant Professor Emeritus, Human, Environmental and Consumer Resources</td>
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<td>Haun, F. Eugene</td>
<td>BA, MA, PhD (1966-88)</td>
<td>Professor Emeritus, English Language and Literature</td>
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<td>Hebert, Catherine A.</td>
<td>AB, MA, PhD (1947-83)</td>
<td>Professor Emeritus, English Language and Literature</td>
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<td>Helley, J. Theodore</td>
<td>BS, MA, PhD (1956-88)</td>
<td>Professor Emeritus, History and Philosophy</td>
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<td>Hester, Kathleen B.</td>
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<td>Hill, Helen</td>
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<td>Professor Emeritus, English Language and Literature</td>
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<td>Hislop, Robert I.</td>
<td>LLB, PhD (1970-81)</td>
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<td>Holtash, F. Charles</td>
<td>BS, MBA, PhD, (1973-91)</td>
<td>Professor Emeritus, Management</td>
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<td>Howe, George M.</td>
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<td>Professor Emeritus, Geography and Geology</td>
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<tr>
<td>Howe, Marvin C.</td>
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<td>Irwin, Martha E.</td>
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<td>Jackson, Donald</td>
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<td>Jacobson, Elaine R.</td>
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<td>Johnson, Fred T.</td>
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<td>Jones, Edgar L., Jr.</td>
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<td>Assistant Professor Emeritus, English Language and Literature</td>
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<td>Jones, Hebert, BS</td>
<td>MA, EdD (1964-86)</td>
<td>Associate Professor Emeritus, Teacher Education</td>
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<tr>
<td>Jones, Vernon H.</td>
<td>BEd, MA (1952-78)</td>
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<tr>
<td>Jordan, Hoover H.</td>
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<td>Kallenbach, Jessamine</td>
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<td>Kilanski, Doris M.</td>
<td>BA, MA, SpA, PhD (1970-82)</td>
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<td>Klowdenman, Winton A.</td>
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<td>Kornbleth, Martin L.</td>
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<td>Koste, Virginia</td>
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<td>Kraushaar, Donald</td>
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<td>Krebs, Robert</td>
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<td>Kureth, Elwood J.C.</td>
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<tr>
<td>LaBounty, Raymond A.</td>
<td>BS, MA, EdD (1945-81)</td>
<td>Professor Emeritus, Industrial Education; Vice President Emeritus, Administration</td>
<td></td>
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<tr>
<td>Lamkin, Ervin G.</td>
<td>BS, MS (1946-69)</td>
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<td>Lane, Maurice L.</td>
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<td>Lansing, Marjorie J.</td>
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<td>Professor Emeritus, Political Science</td>
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<td>Larsen, Delmar</td>
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<td>Leimbach, Richard B.</td>
<td>BS, MEd, EdD (1972-92)</td>
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<tr>
<td>Liao, George</td>
<td>BA, MA, PhD (1955-86)</td>
<td>Director Emeritus, Academic Records and Certification</td>
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<tr>
<td>Lowe, Emily Boyd</td>
<td>AB (1961-91)</td>
<td>Professor Emeritus, Music</td>
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<tr>
<td>MacDonald, Allister</td>
<td>BA, MA (1948-78)</td>
<td>Associate Professor Emeritus, Curriculum and Instruction</td>
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<td>MacDonald, Mary Lee</td>
<td>AB, MA, PhD (1965-88)</td>
<td>Assistant Professor Emeritus, English Language and Literature</td>
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<td>Madgett, Naomi Long</td>
<td>BA, MA (1968-83)</td>
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<td>Magoon, Donald W.</td>
<td>BS, ME, MS, MBA (1965-80)</td>
<td>Associate Professor Emeritus, Management</td>
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<td>Marshall, Albert P.</td>
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<td>Marshall, Everett L.</td>
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<td>Maxfield, Grace K.</td>
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<td>May, George S.</td>
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<td>McDaniel, Thelma</td>
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<td>McEley, Mitchel Roberts</td>
<td>BS, MFA (1967-92)</td>
<td>Professor Emeritus, Communication and Theatre Arts</td>
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<td>McGee, Charles</td>
<td>(1969-87)</td>
<td>Associate Professor Emeritus, Art</td>
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<td>McHugh, Frank</td>
<td>AB, MA (1958-85)</td>
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COURSE SELECTIONS FOR BASIC STUDIES REQUIREMENTS

III-B-4. Complete a course from one of the following options:
   a. A second course in a two-course history sequence
      HIS 102 (follows 101) Western Civilization, 1648 to
      World War I (3)
      HIS 103 (follows 102) Twentieth Century Civilization (3)
      HIS 124 (follows 123) The United States, 1877 to the
      Present (3)
   b. A second course in a two-course sequence in anthropology, economics, geography, or sociology
      ANT 140 (follows 135) Introduction to Prehistoric Anthropology (3)
      ECO 202 (follows 201) Principles of Economics II (3)
      GEO 111 (follows 110) Regions and Resources (3)
      SOC 202 (follows 105) Social Problems (3)
   c. A course in cross-cultural or international studies
      *AAS 101 Introduction to African American Studies (3)
      *ANT 205 Minority Women in the United States (3)
      *ANT 233 Peoples and Cultures of Mexico (3)
      *ANT 236 Peoples and Cultures of Africa (3)
      *ANT 237 Indians of North America (3)
      *ANT 245 Culture of Japan (3)
      *ANT 214 Racial and Cultural Minorities (3)
      *ANT 355 Anthropology of Women (3)
      *ECO 321 Minority Workers in the Labor Market (3)
      *ECO 328 Economics of Women (3)
      *HIS 305 Indians of the United States (3)
      *HIS 315 History of Black Americans (3)
      *HIS 336 History of Women in the United States and
      Great Britain, 1800 to the Present (3)
      *HIS 341 The Middle East, 1798 to Present (3)
      *HIS 342 North Africa, 1798 to Present (3)
      *HIS 346 Twentieth Century Africa (3)
      *HIS 356 Latin America: National Period (3)
      *HIS 375 Modern India (3)
      *SOC 205 Minority Women in the United States (3)
      *SOC 214 Racial and Cultural Minorities (3)
      *SOC 344 Sociology of Sex Roles (3)
      *WMS 200 Introduction to Women’s Studies (3)

IV-B-1. Complete a course from one of the following options:
   a. English-language literature
      LIT 100 The Reading of Literature (3)
      LIT 101 The Reading of Literature: Fiction (3)
      LIT 102 The Reading of Literature: Poetry (3)
      LIT 103 The Reading of Literature: Drama (3)
   b. Foreign-language literature
      FRN 221/222 Intermediate French (Reading) (3)
      FRN 341/342 Survey of French Literature (3)
      GER 221/222 Intermediate German Reading (3)
      GER 341/342 Survey of German Literature (3)
      SPN 221/222 Intermediate Spanish Reading (3)
      SPN 341/342 Survey of Spanish Literature (3)
      SPN 351/352 Survey of Spanish American Literature (3)

IV-B-2. Cross-cultural or international studies
   *FLA 215 The Culture of the Latino Groups in the
     United States (3)
   *LIT 204 Native American Literature (3)
   *LIT 260 African American Literature (3)

IV-B-3. One of:
   a. HIS 100 The Comparative Study of Religion (3)
   b. PHI 100 Introduction to Philosophy (3)
   c. PHI 110 Philosophies of Life (3)
   d. PHI 120 Introduction to Critical Reasoning (3)
   e. PHI 130 Introduction to Logic (3)
   f. PHI 212 Philosophy of Art (3)
   g. PHI 215 Philosophy of Religion (3)
   h. PHI 220 Ethics (3)
   i. PHI 221 Business Ethics (3)
   j. PHI 225 Political Philosophy (3)
   k. *PHI 226 Philosophy of Women (3)
   l. PSY 225 Psychology of Religion (3)

IV-B-4. One of:
   a. CTA 222 Drama and Play in Human Experience (3)
   b. CTA 106 Introduction to the Performing Arts (3)
   c. CTA 150 Introduction to Theatre (3)
   d. CTA 151 African American Theatre: An Introduction (3)
   e. CTA 158 Fundamentals of Acting (3)
   f. CTA 145 Introduction to Film Appreciation (3)
   g. DAN 106 Introduction to the Performing Arts (3)
   h. FA 100 Art Appreciation (3)
   i. FA 101 Introduction to Art (3)
   j. FA 107 Art History Survey I (3)
   k. FA 108 Art History Survey II (3)
   l. FA 122 Two-Dimensional Design (3)
   m. FA 123 Drawing I (3)
   n. FA 165 Graphic Design for Non-Majors (3)
   o. FA 166 Ceramics for Non-Majors (3)
   p. FA 167 Jewelry for Non-Majors (3)
   q. *FA 222 African and African American Art (3)
   r. MUS 100 Introduction to Music Theory (3)
   s. MUS 106 Introduction to the Performing Arts (3)
   t. MUS 107 Music Appreciation (2)

Physical education, military science, or equivalent (2)