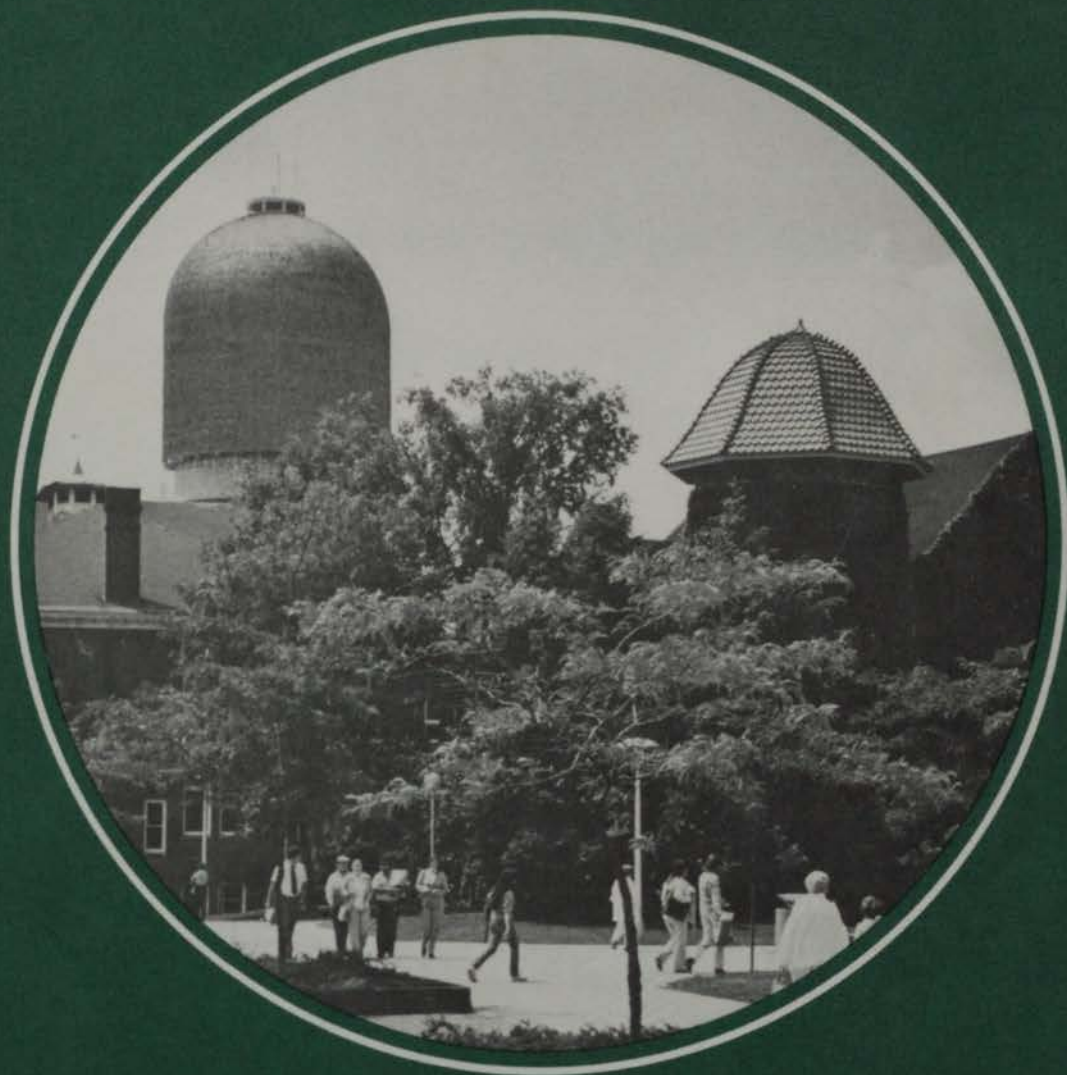


# EASTERN MICHIGAN



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1982-83  
UNDERGRADUATE CATALOG

# EASTERN MICHIGAN UNIVERSITY BULLETIN

## The Undergraduate Catalog

125th ANNUAL EDITION

### ACCREDITED BY

The North Central Association of Colleges and Secondary Schools  
The National Council for Accreditation of Teacher Education  
The American Chemical Society  
American Assembly of Collegiate Schools of Business  
National Association of Schools of Music  
The Council on Social Work Education  
The American Speech and Hearing Association  
The National League for Nursing  
The American Home Economics Association  
The American Dietetics Association

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## TO THE USER

To assist you in using this catalog, an Index to Programs of Study (page 324) and an Index to Course Prefixes (page 323) have been provided as well as the General Index (page 327).

## TEACHER CERTIFICATION

After July 1, 1983, all applicants for a Michigan teaching certificate must have had instruction in the teaching of reading as follows: 6 semester hours for an elementary provisional certificate and 3 semester hours for a secondary provisional certificate. Recommended courses are: for elementary — CUR 314 Teaching Reading and the Language Arts (6 sem. hrs.); for secondary — CUR 311 Teaching Secondary Reading (3 sem hrs.).

**The provisions of this catalog are not to be regarded as irrevocable contractual commitments between the University and student. The University reserves the right to change any provisions or requirements contained herein at any time within the student's term of residence.**

# EASTERN MICHIGAN UNIVERSITY

YPSILANTI, MICHIGAN 48197

## GOVERNMENT OF THE UNIVERSITY

The 1963 Constitution of the state of Michigan places Eastern Michigan University under a board of control consisting of eight members appointed by the governor. It is known as the Board of Regents of Eastern Michigan University. Financial support for the University comes from tax money paid by the people of Michigan and receipt of student tuition and fees.

## THE BOARD OF REGENTS

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# INFORMATION REQUESTS

PLEASE ADDRESS SPECIFIC INQUIRIES  
TO THE FOLLOWING OFFICES:

Admission (undergraduate)	Admissions Office, 214 Pierce, 487-3060
Admission (graduate)	Graduate School, 116 Pierce, 487-3400
Adult education	Continuing Education, 319 Goodison, 487-0407
Alumni affairs	Alumni Relations Office, 202 McKenny Union, 487-0250
Athletic information and tickets	Athletics Office, 200 Bowen Field House, 487-0351
Billing and fees	Student Accounting Office, Briggs Hall, 487-3335
Campus life	Campus Life, 117 Goodison, 487-3045
Campus visits of individuals or groups	Campus Interact, Starkweather Hall, 487-1111
Career employment for college graduates	Career Services Center, 420 W. Forest, 487-0400
Catalogs (undergraduate)	Academic Records and Certification Office, 5 Pierce, 487-4111
Catalogs (graduate)	Graduate School, 116 Pierce, 487-3400
Consultation services to schools	Continuing Education, 319 Goodison, 487-0407
Courses of study	Academic Services Center, 229 Pierce, 487-2170
Curricular requirements and scheduling	Academic Services Center, 229 Pierce, 487-2170
Degree and certification requirements	Academic Records and Certification Office, 5 Pierce, 487-4111
Employment for students	Career Services Center, 420 W. Forest, 487-4040
Evening advising	Academic Services Center, 229 Pierce, 487-2170
Evening classes and programs of study	Academic Services Center, 229 Pierce, 487-2170
Financial aid	Financial Aid Office, 212 Pierce, 487-0455
General welfare of individual students	Dean of Students, 214 Goodison, 487-3116
In-service and correspondence courses	Continuing Education, 319 Goodison, 487-0407
Living accommodations	Housing Office, Dining Commons #1, 487-1300
Parents' Association	Starkweather Hall, 487-2222
Program information (undergraduate)	Admissions Office, 214 Pierce, 487-3060
Program information (graduate)	Graduate School, 116 Pierce, 487-3400
Registration for classes	Registration Office, Briggs Hall, 487-2300
Scholarships, loans and grants-in-aid	Financial Aid Office, 212 Pierce, 487-0455
Speakers for special occasions	Continuing Education, 319 Goodison, 487-0407
Teaching certification	Academic Records and Certification Office, 5 Pierce, 487-4111
Teaching vacancies	Career Services Center, 420 W. Forest, 487-0400
Transcripts	Academic Records and Certification Office, 5 Pierce, 487-4200
Transfer credit	Academic Records and Certification Office, 5 Pierce, 487-4111
Veterans' affairs	Veterans' Affairs Office, 217 Goodison, 487-0025

Eastern Michigan University  
Ypsilanti, Michigan 48197

# ADMINISTRATIVE OFFICES

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President ..... John W. Porter  
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 Vice President for Student Affairs ..... Laurence N. Smith  
 Acting Vice President for University Relations  
 and Temporary Secretary to the Board .. John C. Fountain

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 Biology, Head ..... Herbert H. Caswell, Jr.  
 Chemistry, Acting Head ..... O. Bertrand Ramsey  
 Economics, Head ..... Young-Iob Chung  
 English Language and Literature,  
 Head ..... Judith A. Johnson  
 Foreign Languages and Bilingual  
 Studies, Head ..... John R. Hubbard  
 Bilingual Bicultural Program,  
 Director ..... Pending  
 Geography and Geology, Head .. Elwood J. C. Kureth  
 History and Philosophy, Head ..... Ira M. Wheatley  
 Mathematics and Computer Science  
 Head ..... James H. Northey

Music, Head ..... James B. Hause  
 Physics and Astronomy, Head .. Elwood J. C. Kureth  
 Political Science, Head ..... James D. Johnson  
 Psychology, Head ..... Barry A. Fish  
 Sociology, Head ..... Marcello Truzzi  
 Speech and Dramatic Arts, Head .. Dennis M. Beagen

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 Associate Dean ..... Patricia L. Weber

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 Management, Head ..... Floyd Patrick  
 Marketing, Head ..... Robert Williams  
 Operations Research and Information  
 Services, Head ..... V. M. Rao Tummala

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 Associate Dean ..... Mary Green  
 Director of Student Teaching ..... Robbie Johnson

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 Health, Physical Education, Recreation and  
 Dance, Head ..... Patric L. Cavanaugh  
 Special Education, Head ..... Norman J. Niesen  
 Teacher Education, Head ..... Marvin Pasch  
 Center for Community Education,  
 Director ..... Donna Schmitt

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 Home Economics, Head ..... Billie L. Sands  
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 Nursing Education, Head ..... Janet S. Boyd  
 Occupational Therapy, Head ..... Lyla M. Spelbring  
 Social Work, Head ..... Donald Loppnow

### College of Technology:

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 Industrial Technology, Head ..... Jeffery T. Luftig  
 Interdisciplinary Technology,  
 Acting head ..... Paul Kuwik  
 Military Science,  
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 Sandra Wright  
 Program Manager ..... G. Patrick Barley

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 Assistant Dean ..... Hector Garza  
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 Assistant Vice President for  
 Academic Affairs ..... Suzanne M. Fleming  
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 Associate Directors ..... Nancy L. Dahl  
 Paul L. Zabawa

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 Senior Coordinator ..... Edgar L. Jones  
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 Joan A. Schiller  
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 Reinaldo Perez  
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 Associate Director ..... LaVerne W. Weber

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 Coordinator ..... Joanne Michalak

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International Projects Office,  
Acting Director ..... Jean S. Bidwell

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Director of Employee Relations ..... (Vacant)  
Director of Personnel Services ..... June Davis  
University Computing:  
Executive Director ..... (Vacant)  
University Planning & Analysis:  
Director ..... George A. Johnston  
Affirmative Action Director ..... Lewis Griffin

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Assistant Director of Accounting ..... (Vacant)  
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Student Accounting ..... Patrick Doyle  
Payroll Supervisor ..... Colleen Rheam  
Plant Accountant ..... Linda F. Muth  
Cashier ..... Maureen Wehrlin  
Accounts Payable Supervisor ..... Catherine Krause  
Student Loan Accountant ..... Richard Byrd  
Treasury Accountant ..... Dario V. Ontiveros  
Budget Director ..... Robert A. Andrews  
Budget Analyst ..... David G. Herrman  
Budget Analyst ..... Judith A. Tedesco  
Purchasing Director ..... William D. Swihart  
Purchasing Agent ..... John B. Miller  
Physical Plant Director ..... William Smart  
Public Safety Director ..... John E. Hayes  
Service Operations Manager ..... James Vick

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Budget Analyst ..... Michael Broughton  
Admissions:  
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Assistant Director (On Campus  
Programs) ..... Gregory A. Peoples  
Assistant Director (Internal Operations) .. Joseph J. Jorfi  
Assistant Director (Outreach) ..... Pending  
Admissions Counselors ..... Ralph Cowan  
Clarence Lyte  
James Olsen  
Alberto Perales  
Robert Salisbury  
Diane Sweeso  
Patricia Williams  
Campus Life:  
Acting Director ..... Michael Kulczycki  
Campus Life Officers ..... William Barnett  
Pamela Horne

Career Services Center:  
Director of Career Services ..... Pending  
Associate Director of Career  
Services and Director of  
Cooperative Education ..... Jane K. Moehle  
Coordinator, Cooperative Education .. Cynthia Cudillo  
Assistant Coordinator, Cooperative  
Education ..... Kenneth Macek  
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Services (Business & Industry  
Placement) ..... Donald C. Boyd  
Assistant Director of Career  
Services (Student Employment) ..... Joanne Burns  
Assistant Director of Career  
Services (School Administration  
Placement and Teacher  
Placement) ..... Theophilus E. Hamilton  
Student Employment Officer ..... Barbara Jones

Financial Aid:  
Director ..... Courtney O. McAnuff  
Associate Director ..... Judy B. Tatum  
Assistant Director (Advising) ..... Juanita M. Reid  
Assistant Director (Operations) ..... Thomas P. Smedes  
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Financial Aid Adviser  
(Special Programs) ..... Henry P. Pelaez  
Financial Aid Adviser (BEOG/CWS) .. Juanita M. Clement  
Financial Aid Adviser  
(CSL/Outreach) ..... Cynthia H. VanPelt

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Associate Director ..... John VanVolkinburg  
Manager, Food Purchasing  
and Stores ..... Jack Davidson  
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Unit Manager ..... Larry Gates  
Unit Manager ..... Nancy Erichson

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Tania Bertsch  
Supervisor of Nursing ..... Mary Gerhart  
Staff Nurse ..... Rosemary Blakeman  
Nurse Practitioner ..... Kathryn Kirk  
Pharmacy Supervisor ..... Kerry Manseau  
Pharmacist ..... Arthur Preuss  
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X-Ray Technician ..... Judith Gloffely  
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Mental Health Counselors ..... James McGraw  
Kathleen Peoples  
Coordinator, Child Care Center ..... Tobi Hanna Bartlett  
Assistant Coordinator ..... Bertha Thoms  
Assistant Coordinator ..... Debora Romeo

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Assistant Director  
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Assistant Director  
(Residence Halls) ..... Constance Foley  
Assistant Director  
(Residence Halls) ..... Dennis Lefond  
Administrative Assistant ..... Michael Piotrasch  
Senior Accountant ..... Jerry Ehlers

McKenny Union/University Conferences:  
Director ..... Walter C. Miller



## UNIVERSITY RELATIONS

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 Manager, University Bookstore ..... **Jack Toundaian**  
 Assistant Manager, University Bookstore  
 (General Merchandise) ..... **M. Katherine Powers**  
 Assistant Manager, University Bookstore  
 (Book Department) ..... **Michael Norton**  
 Manager, McKenny/Conferences  
 Food Service ..... **Vacant**  
 Assistant Manager, Commercial  
 Food Operations ..... **Vernon Hale**  
 General Services Manager ..... **Maura Gelpi**  
 Coordinator, Banquets & Catering ..... **Gerri Gooden**  
                                                                                  **Jean Flori**  
 Acting Manager, Conference Sales ..... **Barbara Burns**  
 Marketing & Promotions Specialist ..... **JoAnn Rochon**  
 Facilities Manager ..... **Mickey Roberson**  
**Recreation/Intramurals:**  
 Director ..... **Robert England**

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 Director of University Opportunity  
 Program and Coordinator of Special  
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 Veterans Affairs Officer ..... **Joy Levinski**

**Student Publications:**  
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**Alumni Relations:**  
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 Associate Director ..... **Pending**  
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 Sports Information Manager ..... **James L. Streeter**  
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 Graphic Arts Specialist ..... **John P. Grubb**

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 News and Sports Coordinator ..... **Sam W. Eiler**  
 Technical Operations Manager ... **Ray Cryderman**  
 News and Public Affairs Producer ..... **Clark Smith**  
 Promotion and Development  
 Manager ..... **William Humphries**  
 Music Director ..... **Jim Dulzo**

# UNIVERSITY CALENDAR

## 1982 - 83 Academic Calendar

### FALL SEMESTER, 1982

September 3 & 7, Friday and Tuesday . Program Adjustment  
September 6 & 7, Monday and Tuesday . . . . . Move-in Days  
September 8, Wednesday . . . . . Classes Begin  
November 24, Wednesday . . . . . No classes after 5 p.m.  
November 25-28, Thursday thru  
Sunday . . . . . Thanksgiving Recess  
November 29, Monday . . . . . Classes Resume  
December 16-18, & 20-21, Thursday thru Saturday  
and Monday and Tuesday . . . . . Final Examinations  
December 19, Sunday . . . . . Mid-Year Commencement  
December 21, Tuesday . . . . . Fall Semester Closes

### WINTER SEMESTER, 1983

January 6 & 7, Thursday and Friday . . Program Adjustment  
January 9, Sunday . . . . . Move-in Day  
January 10, Monday . . . . . Classes Begin  
February 27-March 6, Sunday thru Sunday . . Winter Recess  
March 7, Monday . . . . . Classes Resume  
March 23, Wednesday . . . . . Honors Convocation  
April 1-3, Friday thru Sunday . . . . . Spring Recess  
April 4, Monday . . . . . Classes Resume  
April 26-30, Tuesday thru Saturday . . . Final Examinations  
April 30, Saturday . . . . . Winter Semester Closes  
April 30, Saturday . . . . . Commencement

### SPRING SESSION, 1983

May 3, Tuesday . . . . . Move-in Day  
May 4, Wednesday . . . . . Classes Begin  
May 30, Monday . . . . . Memorial Day  
June 23-24, Thursday and Friday . . . . Final Examinations  
June 24, Friday . . . . . Spring Session Closes

### SUMMER SESSION, 1983

## 1983 - 84, Academic Calendar

### FALL SEMESTER, 1983

September 2 & 6, Friday and Tuesday . Program Adjustment  
September 5 & 6, Monday and Tuesday . . . . . Move-in Days  
September 7, Wednesday . . . . . Classes Begin  
November 23, Wednesday . . . . . No classes after 5 p.m.  
November 24-27, Thursday thru  
Sunday . . . . . Thanksgiving Recess  
November 28, Monday . . . . . Classes Resume  
December 15-17 and 19-20, Thursday thru Saturday  
and Monday and Tuesday . . . . . Final Examinations  
December 18, Sunday . . . . . Mid-Year Commencement  
December 20, Tuesday . . . . . Fall Semester Closes

### WINTER SEMESTER, 1984

January 5 & 6, Thursday and Friday . . Program Adjustment  
January 8, Sunday . . . . . Move-in Day  
January 9, Monday . . . . . Classes Begin  
February 26-March 4, Sunday thru Sunday . . Winter Recess  
March 5, Monday . . . . . Classes Resume  
April 4, Wednesday . . . . . Honors Convocation  
April 20-22, Friday thru Sunday . . . . . Spring Recess  
April 23, Monday . . . . . Classes Resume  
April 24-28, Tuesday thru Saturday . . . Final Examinations  
April 28, Saturday . . . . . Winter Semester Closes  
April 28, Saturday . . . . . Commencement

### SPRING SESSION, 1984

May 1, Tuesday . . . . . Move-in Day  
May 2, Wednesday . . . . . Classes Begin  
May 28, Monday . . . . . Memorial Day  
June 21 & 22, Thursday and Friday . . . Final Examinations  
June 22, Friday . . . . . Spring Session Closes

### SUMMER SESSION, 1984

June 24, Sunday . . . . . Move-in Day  
June 25, Monday . . . . . Classes Begin  
July 4, Wednesday . . . . . Independence Day  
August 2 & 3, Thursday and  
Friday . . . . . Final Examinations - 6 weeks  
August 14 & 15, Tuesday and  
Wednesday . . . . . Final Examinations - 7½ weeks  
August 17, Friday . . . . . Summer Session Closes

# GENERAL INFORMATION

## LOCATION

Eastern Michigan University is located in Ypsilanti, a community of about 80,000 people 30 miles west of Detroit and seven miles east of Ann Arbor. Ypsilanti is exceptionally convenient to widely diversified cultural, commercial and industrial activities and to all types of transportation.

Detroit Metropolitan Airport is 20 minutes away. I-94, the major east-west expressway in Lower Michigan, borders Ypsilanti on the south. A north-south expressway (US-23) passes between Ypsilanti and Ann Arbor, connecting with the Ohio turnpike to the south and other interstate highways to the north. In addition, I-275 provides quick and convenient access to Eastern from the northwestern suburbs of metropolitan Detroit.

In addition to the extensive cultural opportunities at Eastern, the resources of the University of Michigan are 15 minutes away, and downtown Detroit is a 45-minute drive. Approximately four million people — more than half the population of the state of Michigan — live within 50 miles of the Eastern Michigan University campus.

## STATEMENT OF PURPOSE

Eastern Michigan University is a multipurpose state university which provides undergraduate programs in liberal arts, science, education, business, public service, health professions and industrial technology. The University offers graduate study in selected disciplines which may lead to the master's and specialist's degree. Services provided at the state, national and international levels are also important components of its academic mission.

The University provides a variety of curricular, co-curricular and extra-curricular experiences within an environment which is intended to encourage personal growth and social contribution among students, faculty and staff. As a University of opportunity, Eastern Michigan University has established the following goals:

### Instructional

#### Undergraduate

To equip students with the skills of creative thought, fluent communication and critical analysis which will enable them to use knowledge effectively.

To acquaint students with the growing scope and substance of human knowledge.

To expand students' cultural and social awareness.

To cultivate in students the aspiration for continued intellectual growth throughout their lives.

To provide each student with concentrated exposure to some field of knowledge, the experience of which may lead to a career.

To prepare students for entry into graduate and professional schools.

#### Graduate

To provide students with advanced programs of study, practice, fundamental research and creative production in the arts, humanities, social sciences, natural sciences, education, business, human services, technology and selected applied disciplines.

To involve students in advanced programs of inquiry which reflect the evolving methods of organizing knowledge and approaching contemporary problems.

To offer post-baccalaureate experiences which may or may not lead to a degree, but which will enable students in areas such as business, education, health and science to develop professionally and/or to adjust to the growth of knowledge in their chosen field.

#### Continuing Education

To make degree and non-degree programs available to both the traditional and non-traditional students in settings on and off campus.

To provide educational experiences which are intended to maintain or enhance occupational or professional competence.

To offer educational opportunities leading to personal development, social understanding and cultural enrichment.

### Research, Scholarship, Artistic Pursuits

To enlarge the existing body of human knowledge.

To reorganize and reinterpret existing knowledge.

To devise new uses for knowledge.

To expand human experience through artistic expression.

To conduct research and development in various applied disciplines.

To perform mission oriented research and demonstration projects at the request of community based groups.

To disseminate, in a variety of forms, the outcomes of research and artistic exploration.

### Service

To provide to the local community and general public upon request the results of research conducted at the University.

To offer to the community various artistic products, performances and displays.

To provide consultation and practical assistance in such fields as business, education, health, government and the arts.

### Humanistic Environment

It is essential to provide a context within which all previously stated goals may be pursued propitiously. Consequently, these final aims are offered:

To develop an atmosphere of community, trust and commitment among all segments of the University, student, faculty and staff.

To encourage in students, faculty and staff social and emotional development and physical and mental well-being.

To foster in all members of the University community capacities for making sensitive, value-oriented judgments.

## HISTORY

Eastern Michigan University was founded by the state Legislature in 1849 to educate teachers for the public schools. Teacher preparation was the primary purpose of the institution for its first 100 years, but this purpose was always broadly interpreted and included instruction in liberal arts, science and other areas vital to the background of a well-qualified teacher. The University's capabilities in these various areas developed steadily, and were formally recognized in 1959 by the designation of Eastern as a multipurpose university with accredited and respected degrees in many areas of the liberal arts, social and natural sciences, business, health and pre-

professional programs. Graduate study is offered in art, biology, chemistry, English language and literature, geography and geology, historical preservation planning, history and philosophy, mathematics, music, physics and astronomy, psychology, sociology, criminology and criminal justice, speech and dramatic arts, accounting and finance, business education, management, marketing, organizational behavior and development, operations research and information systems, as well as in various areas of general and special education, bilingual-bicultural education, health, physical education, recreation, home economics, industrial education and industrial technology.

Although Eastern is 133 years old, its most rapid growth has been recent. Eastern enrolled just over 1,000 students in 1899, and had grown to 2,520 in 1924. The 1924 enrollment was not exceeded until after World War II. In 1955, Eastern enrolled 3,400 students and in 1960, 5,100. Enrollment jumped to 7,200 in 1963, 10,200 in 1965, 14,769 in 1967, 19,965 in 1970, and 18,888 in the fall of 1979. Currently, enrollment is stable at nearly 20,000 students.

In its early years, Eastern, as one of the first education colleges in the nation, had a primary role in defining America's educational philosophy. At the time of the institution's founding, only five normal schools existed in the United States, none more than 14 years old. Eastern was the first west of Albany, New York. The Detroit Public School system was only 10 years old and had no high school. "Union graded schools" — multi-room schools formed by consolidating upgraded one-room school districts — were just beginning in some of the state's larger communities, and only a few had high school departments.

With education in this primitive state and with Eastern presenting a pioneering role, a significant debate over the institution's curriculum evolved.

The Michigan State Normal School faculty began developing academic courses far more advanced than those offered in public schools. This caused resentment among some, particularly when many Normal graduates did not enter the teaching profession after graduation.

The institution insisted, however, that a liberal arts education is essential in the development of the professional teacher. This concept is one of the school's most important legacies to the teaching profession.

In 1956, recognizing the development of regional teachers' colleges in the state, Michigan State Normal College became Eastern Michigan College. On June 1, 1959, the college became Eastern Michigan University, comprising three colleges — Arts and Sciences, Education and the Graduate School. The College of Business was created in 1964 and the College of Human Services in 1974. In 1980 the University established the College of Technology.

Many of the fine programs offered by the University today, developed in response to the changing needs of our students and society, are grounded in the strengths of Eastern Michigan University's past. The Foreign Languages and Bilingual Studies Department was among the first in the country to establish a language laboratory and today has taken the lead in offering programs in language and international trade.

Leadership in developing and offering programs in new technological areas is provided by the Department of Industrial Technology, the Department of Business and Industrial Education and the Department of Interdisciplinary Technology.

A variety of programs designed to prepare professionals to respond to the planning, utilization and conservation needs of our society is offered by the Department of Geography and Geology. This department, established at EMU in 1900, was one of the first departments of geography in the country, and today the department ranks among the top ten in the United States in student enrollment.

The Department of Special Education, established soon after World War I, was the first of its kind in Michigan. The Rackham School of Special Education, built in 1937, has served as a model and prototype for the rest of the nation and today provides Eastern's students an educational setting and experience rivaled by few other institutions in the country.

Music studies were established at the University in 1854, and recent program developments in that area have been enhanced by a new music building dedicated in 1980. Eastern boasts of a comprehensive fine arts program of national repute, offering excellent instruction in drama, dance, music and art.

Recently Eastern took bold new leadership by establishing the National Center for Teaching and Learning. The Center offers new resources to address the needs of educational systems at all levels.

Both the past and the future of Eastern Michigan University, its programs and its faculty are characterized by quality, uniqueness and opportunity.

## RESOURCES

Eastern Michigan University provides all the resources of a thriving, multi-purpose university. Faculty, staff, physical plant and related facilities are available for an enrollment of nearly 20,000 students.

The College of Arts and Sciences includes departments of Afro-American studies, art, biology, chemistry, economics, English language and literature, foreign languages and bilingual studies, geography and geology, history and philosophy, mathematics and computer science, music, physics and astronomy, political science, psychology, sociology, and speech and dramatic arts. The General Humanities Program and Women's Studies Program are also located in this college's section of the catalog.

Eastern offers specialized non-degree pre-professional programs in pre-architecture, pre-dentistry, pre-engineering, pre-forestry, pre-law, pre-medicine and osteopathy, pre-mortuary science, pre-pharmacy and pre-religious studies. Pre-professional students can select a regular major and go on to complete a bachelor's degree. Professional curricula include applied science, arts management, language and international trade, criminology and criminal justice, and music performance.

The College of Business includes the departments of accounting and finance, management, marketing, and operations research and information systems.

The College of Education is Eastern's oldest college, and includes the departments of educational leadership/guidance and counseling, teacher education, special education, and health, physical education, recreation and dance.

Specialties in undergraduate education programs include early and later elementary teaching, secondary teaching, and teaching of art, business education, bilingual-bicultural education, dance, home economics, industrial education, library science, music, physical education, recreation and special education.

The College of Human Services includes the departments of health administration, home economics, medical technology, nursing education, occupational therapy and social work.

The College of Technology includes the departments of business and industrial education, industrial technology, interdisciplinary technology, and military science.

The main campus is located on approximately 275 acres on the north side of Ypsilanti near the Huron River. An additional 182 acres west of the central campus houses intercollegiate and intramural athletic facilities, the Loessel Field Laboratory and the Westview apartments for married students.

The Kresge Environmental Center in Lapeer County is located on an additional 240 acres owned by the University.

The major University buildings are described in the Physical Plant section on page 294.

Approximately \$50,000,000 in major construction has been completed since 1960, providing many new facilities as well as expanding and remodeling existing buildings. A new 8.4 million dollar music building was completed in 1980.

The athletic plant includes a 13-year-old 22,000-seat football stadium, a 2,500-seat baseball stadium and track and field facilities on the west campus. Currently under construction and scheduled for completion in 1982 is an expanded and superior intramural and recreational facility for the University community.

On-campus housing for more than 5,000 persons is provided in residence halls and apartments for single and married students. Much of this space can be made available during summer months for conference guests, students taking short-term courses and others.

Eastern operates both spring and summer sessions offering regular credit courses in graduate and undergraduate fields. In addition to regular courses, special sessions and concentrated workshops are held in areas of particular interest. Enrollment in the University's summer session in 1981 was approximately 5000.

The University's Division of Continuing Education offers regular and special courses in 17 communities throughout Michigan, and especially in the southeastern section of the state. By cooperative agreement, the University offers with Jackson Community College a "2 plus 2" program for completing a bachelor's degree in several fields with courses provided on JCC's campus. The division also provides consultative services, adult education activities, conferences and workshops and a variety of other specialized services designed to carry the resources of the University into communities throughout the state and beyond.

## ACCREDITATION

Eastern Michigan University is an accredited member of the North Central Association of Colleges and Secondary Schools and is accredited by the National Council for Accreditation of Teacher Education for the preparation of elementary teachers, secondary teachers and school service personnel. The specialist degree is the highest degree approved. Undergraduate and graduate programs in the College of Business are accredited by the American Assembly of Collegiate Schools of Business. All programs in the Department of Music are accredited by the National Association of Schools of Music (Music Therapy pending). The Chemistry Department is accredited by the American Chemical Society and the Occupational Therapy Program by the American Medical Association in collaboration with the American Occupational Therapy Association. The Social Work program is accredited by the Council on Social Work Education. The Speech Pathology Program for Teachers of the Speech and Language Impaired is accredited for educational training and clinical services by The American Speech and Hearing Association. The Nursing program is accredited by The National League for Nursing. Undergraduate programs in the Home Economics Department are accredited by the American Home Economics Association, and the Dietetics Program is accredited by the American Dietetics Association.

## EASTERN MICHIGAN UNIVERSITY TODAY

Eastern enrolled approximately 20,000 students in the fall of 1981. Approximately 85 per cent of these students came from nine counties in southeastern Michigan. However, all areas of Michigan are represented in Eastern's student body, as are more than 35 other states, the District of Columbia and Puerto

Rico. Nearly 40 countries are represented in Eastern's student body.

In the 21 years in which Eastern Michigan has been a university, a major priority has been the development of a greater variety of programs of high quality and demonstrated need. The result of this commitment has been that today Eastern offers courses of instruction leading to baccalaureate degrees in approximately 150 program areas. Some illustrations of recent new program areas are cited below.

In the College of Arts and Sciences, a distinctive undergraduate program in arts management began in 1975, using the strong offerings in art, music, drama, dance, journalism and business to develop trained personnel for arts institutions. The existing radio-television-film minor proved so popular and effective that in 1978 a new major in this field was first offered.

A program in language and international trade offers strong, integrated preparation in language (French, German or Spanish), in business, and in related social sciences, plus internship experiences in multi-national business here or abroad.

A Bachelor of Music degree with a major in performance is offered at EMU for students who plan professional careers in music. It provides rigorous training in all aspects of music but does not lead to a teaching certificate. A music therapy program has recently been initiated.

Extensive developments have taken place in the social sciences, where the departments have responded with a number of new programs providing professional and academic preparation for new careers.

New in the last few years are three programs offered by the Geography and Geology Department — a major in land use analysis, a minor in historical preservation, and a minor in coastal environments, to prepare professionals to respond to the planning, utilization and conservation needs of our society.

A program leading to a bachelor's degree in labor studies, unique in the state of Michigan, is designed to provide undergraduate training to the adult full-time employee of Michigan's industrial sector as well as the traditional University student population.

A curriculum in criminal justice and criminology was added in 1973. The program emphasizes professional education rather than technical training. The curriculum and its constituent courses also have a wide appeal to students in other fields, particularly pre-law and public service.

Another new program leads to a Bachelor of Science degree in public administration. The curriculum is designed to teach students about the problems of the public sector and train them for positions of governmental agencies or private agencies having extensive dealings with government. A new, related program for 1977 was the public law and government major.

The College of Business is one of the fastest-growing segments of the University, both in size and in stature. The accounting program is strong, demanding and popular. Graduates of the business computer systems major are in high demand and repute. Interest is expected to grow in a new major in production systems analysis, a program with a strong computer orientation.

In its development as a multi purpose university, Eastern has not neglected its traditional role as one of the nation's leading teacher education institutions. In its 133 year history, more than 33,000 provisional certificates, 21,130 life certificates and more than 16,000 other certificates have been awarded, for a total of more than 70,000. More of the state's teachers today are graduates of EMU than of any other institution, and University officials have said repeatedly that "Teacher education will continue to be a major concern." Proof of this continuing commitment can be seen in the program in early childhood education and in the new competency-based bilingual-bicultural minor to meet the cur-

rent needs of teachers of Spanish-speaking students.

In the College of Human Services, a nursing education program, initiated during 1973, leads to the B.S.N. degree and prepares students to function in a variety of community settings such as clinics, physicians' offices, public health organizations, home care agencies and hospitals. A degree in health administration was added in 1978.

An interdisciplinary minor in gerontology is now offered to provide preparation for a wide variety of opportunities for work with the elderly. Strengthened and updated programs in dietetics, fashion merchandising, and interior design and housing have been implemented in recent years.

The recently revised and expanded social work program has achieved wide recognition. During 1981 the College of Technology added new major programs in polymers and coatings and computer-aided design technology.

Supplementing the strong academic programs of the University are various student activities which provide the opportunity to extend classroom experience to other areas. Eastern Michigan University's forensic team has been national champions the last four years, and five out of the last six. The Madrigal Singers are internationally known for the extremely high quality of their performances and were awarded the Dame Rush-Railton award as the most outstanding choir in the 1979 Cork, Ireland, International Choral and Folk Dance Competition. In addition to having a national award-winning student newspaper, the University also is known widely for its drama, children's drama, music and fine arts programs, all of which enhance the educational opportunities of their students.

Many opportunities are provided today at the University for students to include internship, cooperative education or other work-related or practicum experience as part of their degree program. For example, medical technology, dietetics, arts management and social work require these as part of the program. In other cases, such as public administration, land use analysis, computer systems and accounting, the experience is available for credit for qualified students.

Other indications of the University's development and diversity today are illustrated by two new institutes, the Office of International Projects, and the new College of Technology.

The Institute for the Study of Children and Families was established by the Board of Regents of Eastern Michigan University for the purpose of providing focus and support to the study of children and families.

Within the focus of the Institute are research, demonstration projects, non-credit educational activities and consultation that are concerned with the determinants and/or consequences of childhood or family life. The Institute promotes and encourages the interdisciplinary study of children and families. Cooperative efforts are exemplified by workshops sponsored with other University departments dealing with cultural diversity and homeschool interaction.

The Institute for Community and Regional Development (ICARD) provides research and educational services to communities, governmental units, non-profit agencies and private interests who seek assistance from Eastern Michigan University. ICARD focuses on land-use planning, economic development, environmental assessment and other community issues in Southeastern Michigan. The Institute serves as an interdisciplinary research arm and extension service for several academic programs including land use studies, historic preservation, public administration and real estate. By drawing on all the University resources, the Institute contributes to the solution of regional problems while providing valuable experience for its faculty and students.

The Office of International Projects is responsible for the development, coordination and implementation of international projects overseas. The office also is responsible for the management, budgeting and monitoring of project contracts and providing the necessary campus support for the field

activities. The Office of International Projects is currently administering two major activities under contract with the United States Agency for International Development: The Swaziland Primary Curriculum Development Project — in the Kingdom of Swaziland, Southern Africa; and the Yemen Basic Education Development Project in the Yemen Arab Republic.

Eastern Michigan University's involvement in international projects has provided a new dimension of recognition both nationally and abroad. This activity provides unique opportunities for the faculty to grow professionally, and to expand its expertise through direct involvement in the projects abroad, or indirectly through related activities on the campus. University students also benefit from this activity through the opportunity to work and study with students from many parts of the world. Future program development should provide for both graduate and undergraduate study related to development issues both on campus and in the countries where the University is engaged in assistance programs.

The new College of Technology is currently utilizing many of the existing instructional offerings of the University and developing new ones to provide an interdisciplinary, broad-based, four-year education in the sciences, mathematics, social sciences and technology, along with some elements of business, human relations and governmental interaction with industry. This education involves extensive practical, "hands-on" experience. In addition to the already existing programs in industrial, manufacturing, and construction technology, future curricular development may include technology programs in metallurgy, energy, environmental science, transportation and communications areas.

All segments of the University community are actively seeking out and implementing ways to strengthen existing programs and develop new ones which utilize the strengths of the University, in order to respond to the needs of our students, our state and our nation.

## CONTROL AND GOVERNING BODY

From its creation in 1849 until January 1, 1964, the institution was governed by the state Board of Education. With the adoption of the new state Constitution, EMU became constitutionally independent and is now governed by the eight-member Board of Regents. The regents are appointed to eight-year terms by the governor, subject to the approval of the state Senate.

Members of the Board of Regents are Richard N. Robb of Ypsilanti, chairman, Beth Wharton Milford, vice-chairperson, of Ypsilanti, James T. Barnes, Jr., of Grosse Pointe Woods, Warren L. Board of Kalamazoo, Timothy J. Dyer of Wayne, Geraldine M. Ellington of Detroit, Dolores A. Kinzel of East Lansing, and Carleton K. Rush of Romulus.

## COMPLIANCE CIVIL RIGHTS POLICY

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

## EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION POLICIES

Eastern Michigan University admits students of either sex, any race, color, and national or ethnic origin to all the rights,

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

## TITLE IX OF THE EDUCATION AMENDMENTS OF 1972

It is the policy of Eastern Michigan University to comply with Title IX of the Education Amendments of 1972 and its Regulation, which prohibit discrimination on the basis of sex.

Anyone who believes that in some respect Eastern Michigan University is not in compliance with Title IX and its regulations should contact the Director of Affirmative Action at (313) 487-0016.

## REHABILITATION ACT OF 1973

In its programs, activities and employment, Eastern Michigan University does not discriminate on the basis of handicap. Veterans and handicapped individuals who are otherwise qualified for admission are invited to apply. Anyone who believes that in some respect Eastern Michigan University is not in compliance with the Rehabilitation Act and its regulations should contact the Director of Affirmative Action at (313) 487-0016.

# ADMISSION

We invite applications for admission from any student who has the potential to succeed at Eastern Michigan University. We will welcome and give careful consideration to applications from any persons strongly motivated to continue their education, whether applying from high schools, community colleges or other colleges or universities, from the military services or just as an interested adult. Because our mission as a university is a broad one, we will consider qualified students requesting admission from a great variety of circumstances. The Admissions Office is in 214 Pierce Hall, (313) 487-3060.

## TYPES OF ADMISSION

To apply for admission to Eastern Michigan University, each applicant must complete and submit a personal application form. Instructions included with the Application for Admission will help determine what specific information will be needed. We understand that applicants for admission present varied educational backgrounds. In order to accommodate this variety, we have devised several categories of admission which are listed below.

### FRESHMEN

Any student attending college for the first time after having earned a high school diploma or its equivalent. Applicants must submit a high school transcript (or results of the G.E.D.) and results of the American College Test (ACT) or the Scholastic Aptitude Test (SAT). NOTE: Applicants over 21 years of age see "Non-traditional Admission."

### TRANSFERS

Any student who has earned credit at a college or university other than Eastern Michigan University. Official transcripts from all institutions attended must be submitted as a part of your application. NOTE: An applicant who has earned less than 12 semester hours of transferrable credit (18 quarter hours) will be required to submit a high school transcript (or results of the G.E.D.) and results of the ACT or SAT.

Students with credit from a junior or community college must earn a minimum of 60 semester hours exclusive of junior or community college credit.

### VETERANS

Any student with a high school diploma or its equivalent who has served in the U.S. Armed Forces for more than 181 consecutive days will be admitted upon receipt of the high school transcript (or G.E.D. results) and documents verifying military duty. Veterans released from active service for reason of disability will be considered as having met the 181 consecutive day requirement. NOTE: If the applicant has attempted any college work since release from active duty, the applicant will be reviewed as a transfer student.

### NON-TRADITIONAL

Applicants who are 21 years of age or older, have a high school diploma (or its equivalent) and have not attempted any college work will be considered for admission without further requirements. Students admitted in this category may be required to take selected tests for advising purposes only. Evidence of high school graduation (or its equivalent) must be submitted.

### DUAL ENROLLMENT

A student may be enrolled at Eastern Michigan University while maintaining a primary enrollment in a high school or community college. Certification by the primary institution is necessary to be considered for admission. NOTE: Contact the Admissions Office at Eastern Michigan for further details.

### GUEST STUDENT

A student who is regularly matriculated and is in good standing in another regionally accredited college or university may be admitted as a guest student. The student assumes full responsibility for determining whether or not the courses taken at this university will apply to his/her program of study. A guest student is urged to have the courses to be taken approved in advance by the registrar of the college or university to which the credits are to be transferred. A guest student is subject to the academic policies of Eastern Michigan University while in attendance here.

## NON-MATRICULATED STUDENT

This is a student who is permitted to enroll in classes at Eastern Michigan University, but is not admitted to the University through the regular admission process. A non-matriculated student is admitted to take a course or courses for **one semester only**. Any subsequent enrollment will require regular admission.

## INTERNATIONAL STUDENTS

The University welcomes applications from international students who give evidence of academic achievement and English competency which predict probable success in their program area. This school is authorized under Federal law to enroll nonimmigrant alien students.

The International student must submit:

1. Completed application for admissions.
2. Original documents of transcripts of academic credit or certified copies of original documents. (If the original documents are not in English, they must be accompanied by an official English translation.)
3. Evidence of proficiency in the English language (e.g. TOEFL or ELI Michigan test).
4. A statement of financial responsibility covering the total cost of attending the University.

Students may apply for admission any semester. Students are advised to contact the Admissions Office as soon as possible for complete admission requirements. 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.

## UNDERGRADUATE INTERNATIONAL STUDENTS ENGLISH PROFICIENCY REQUIREMENT

1. Students admitted with a standard score of 80 and above on the English Language Institute (ELI) Michigan test or a standard score of 500 or above on the Test of English as a Foreign Language (TOEFL) will be granted regular admission.
2. Students admitted with a standard score of 75 through 79 on the ELI Michigan test or a standard score of 450-499 on TOEFL will be conditionally admitted and placed in courses ESL 412 and ESL 416 their first semester of enrollment.
3. Students admitted with a standard score of 60-74 on the ELI Michigan test or a standard score of 390-499 on TOEFL will be conditionally admitted and placed in courses ESL 310, ESL 312, ESL 314 and ESL 316 their first semester of enrollment, and will not be permitted to enroll in any other courses.
4. Conditionally admitted students (2 and 3 above) must successfully complete the required English as a Second language courses (ESL 310, 312, 314, 316, 412, 416 and 420) in which they are placed. Placement in courses will be determined by the Department of Foreign Languages and Bilingual Studies.
5. For successful completion of English as a Second Language courses, a student must earn a grade of C (2.0) or better in each required ESL course. Students who do not successfully complete their required English as a Second Language courses (ESL) will not be allowed to enroll in any subsequent semester.
6. The semester for which conditional admission is offered may be determined by the student's English proficiency and the availability of courses they are required to complete.

## FORMER STUDENTS OF EASTERN MICHIGAN UNIVERSITY

Former students not in attendance at Eastern Michigan University in the immediate preceding semester (spring and summer excepted) should make application for re-enrollment in the Academic Records and Certification Office, 5 Pierce Hall, at least two months prior to the first day of classes. The applicant should:

1. Obtain an application for re-enrollment from the Academic Records and Certification Office.
2. Complete the application and return it to the Academic Records and Certification Office.

Students who have a past due obligation to the University must clear this obligation through the Student Accounting Office, Briggs Hall, before their application for re-enrollment can be processed.

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

To avoid possible loss of credit toward graduation requirements, an Eastern Michigan University student who wishes to take courses at another college or university should secure prior approval of the department concerned or the director of Academic Records and Certification.

If absence from Eastern Michigan University was by request of the University, the student must initiate any application for re-enrollment with the Academic Services Center.

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

For fall semester .....	March 15
For winter semester .....	Nov. 1
For spring session .....	March 1
For summer session .....	Between April 10 and June 8

## READMISSION OF VETERANS

A veteran of the U.S. Armed Forces whose academic record prior to entry into the Armed Forces would not qualify for readmission is eligible for readmission to Eastern Michigan University on probation. Under this policy, and subsequent to readmission, the veteran is subject to current University dismissal-probation (DP) procedures.

## CALCULATION OF GRADE POINT AVERAGE FOR RETURNING FORMER OR TRANSFER STUDENTS

The grade point average for a former college or university student who has not attended any college or university for at least two calendar years is computed as follows:

1. Non-index courses are not included in the computation of the grade point average.
2. Courses in which a grade of less than "D-" was assigned are not to be included in the computation of the grade point average.
3. When a course has been repeated, only the last grade, wherever earned, is used in the computation of the grade point average.
4. Credit from another accredited institution is allowed for all transferable courses in which a passing grade is received.



# TUITION AND FEES

## FEES SUBJECT TO REVISION

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

## OFFICIAL REGISTRATION DAY

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

## REGISTRATION FEE

A registration fee of \$20.00 for each of the fall and winter semesters, and of \$15.00 for each of the spring and summer sessions, is charged to each student.

This fee is assessed and collected at the time the student registers for the semester or session and is non-refundable.

## TUITION SCHEDULE

Tuition will be assessed for all credit hours for which the student is registered. Off-campus tuition rates are the same as on-campus tuition rates.

Regardless of student class level, undergraduate tuition will be assessed for all 100 through 400 level courses. Graduate tuition will be assessed for all 500 and 600 level courses.

Tuition rates per credit hour, using 1981-82 levels, are:

### MICHIGAN RESIDENT

Undergraduate Courses (100-400 level) .....	\$37.50
Graduate Courses (500-600 level) .....	\$52.50

### NON-RESIDENT

Undergraduate Courses (100-400 level) .....	\$93.00
Graduate Courses (500-600 level) .....	\$125.00

It is the duty of all students prior to registration, if there are any questions as to their right to be registered as a student with a status of Michigan resident, to raise such questions in the Student Accounting Office in Briggs Hall.

## QUALIFICATIONS FOR MICHIGAN RESIDENCE

### Eligibility

In order to be eligible for the resident tuition rate at Eastern Michigan University, it must be demonstrated that a student is already a resident of the State of Michigan or that he/she is coming to the University from outside of the state for reasons primarily other than to attend the University. In order to determine the residence of a student, the following policies will be utilized:

#### I. Minors

The residence 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 criteria listed in VI *Criteria for Determining Intent*, that student shall be considered a Michigan resident for tuition purposes.

#### II. Non-Dependent Students

A student 18 years of age or older shall be eligible for classification as a Michigan resident for tuition purposes if he/she qualified in accordance with the criteria listed in VI. *Criteria for Determining Intent*.

#### III. Spouse of Eligible Person

The residence of a student who otherwise would be classified as a non-resident 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 for permanent residence in the United States who have obtained a permanent or diplomatic visa.)

#### IV. Aliens

An alien (non-citizen) shall be eligible for classification as a Michigan resident for tuition purposes only if the student is lawfully admitted for permanent residence in the United States, has received a permanent or diplomatic visa, and qualifies in accordance with the criteria listed in VI. *Criteria for Determining Intent*.

#### V. 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 may also be used by migrant workers to establish their status.

#### VI. Criteria for Determining Intent

Students from outside the state and for whom the above policies are not applicable shall be considered non-resident students unless it can be determined that their primary purpose in coming to Michigan is to establish residence in the state, rather than to attend a university. For the purpose of determining intent in such cases, the following criteria shall be applied. It is recognized that no one of the following criteria shall, standing alone, necessarily be controlling. It shall be the responsibility of the administration to apply the criteria in a fair and consistent manner and in the spirit of the intent of this policy.

- High School or previous college attendance in Michigan.
- Reliance upon Michigan sources for financial support.
- Residence in Michigan of family, guardian, or other relatives or persons legally responsible for the student.
- Former residence in Michigan and maintenance of significant connections therein while absent.
- Continuous presence in Michigan during periods when not enrolled as a student.
- Long-term military commitments in Michigan.
- Acceptance of an offer of permanent employment in Michigan and source, length, and continuity of employment.
- Traditional considerations made in determining legal residence; i.e., voter registration, ownership of real estate, source of driver's and vehicle licenses, taxpayer status, self-supporting or, dependency on others whether residents of Michigan or elsewhere.

#### Determination of Residence

A student's residence status shall be determined at the time of his/her initial admission to the University. This 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 non-resident for tuition purposes six months thereafter.

**NOTE:** It shall be the responsibility of all students, prior to registration, to raise questions in the Student Accounting Office regarding their right to be registered as a Michigan resident student. The administration is authorized to establish procedures and delegate authority for determining the domicile of students for tuition purposes and to make exceptions within the spirit of this policy.

## TUITION RECIPROcity AGREEMENT WITH OHIO

Ohio residents may now attend Eastern Michigan University at Michigan resident tuition rates. Michigan residents can attend the University of Toledo at Ohio resident tuition rates only if they reside in Monroe County.

The tuition reciprocity agreement was entered into by the Michigan State Board of Education and the Ohio Board of Regents. The agreement was effective with the fall semester, 1980.

## AUDITING FEES

Tuition and registration rates for auditing courses are the same as for credit. See page 23 for regulations governing auditing of courses.

## WORKSHOP SESSIONS

Several two- and three-week workshop sessions are offered during the spring and summer sessions. Tuition and registration fees apply to workshop sessions at the same rates as for regular class sessions. However, a student enrolled in other course work during a session will not be assessed an additional registration fee for enrolling in a workshop during the same session.

1. An adjustment of 100% of the tuition assessment will be made to those students who withdraw prior to the close of business (5 p.m.) on the first day of the session.
2. No other adjustment or refund will be granted.

## FINANCIAL OBLIGATIONS

Having fulfilled all other requirements, a student is eligible for registration or graduation only if all financial obligations to the University have been met at the time of graduation or at the close of the semester or session. Credits or other statements of record will be withheld and the student will be ineligible for further registration (fall advance registration excepted) at EMU until all obligations have been fulfilled.

## PAYMENT OF TUITION

Tuition and fees are payable in two installments. The exact due date for tuition and other University fees is printed on the invoice from Student Accounting and is published in the Supplementary Bulletin (Class Schedule Bulletin) for each semester. To insure 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.

Eastern Michigan University accepts BankAmericard/Visa and Master Charge credit cards in payment of tuition, fees, room and board, and bookstore purchases.

A late payment fee of \$6.00 is assessed if the second payment is not received by the due date.

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 payment of tuition and room and board is denied to students whose University account has been in arrears in amounts exceeding \$100.00 for periods beyond thirty days at any time after September 1, 1979.

## INSTALLMENT PAYMENT OPTION

For those students who prefer to make installment payments, the University provides an optional two-payment plan for the fall and winter semesters only. A service fee of \$5 is collected with the second payment\*. There is no provision for installment payment for spring or summer sessions.

\*To avoid being assessed the \$5 installment fee, tuition must be paid in full prior to the first day of classes.

## PROGRAM ADJUSTMENT FEE

For five days prior to the beginning of classes, program adjustments may be made with no assessment of an adjustment fee. During this period, each academic department will maintain a station at one central location to assist in program planning and solving scheduling conflicts. At least 50 percent of the increased tuition, resulting from adjustments, must be paid at the time of adjustment. Actual dates are printed in the Class Schedule for each semester and session.

During the first five class days of the semester, a program adjustment 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. At least 50 percent of the increased tuition, resulting from adjustments, must be paid at the time of adjustment.

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

## LATE REGISTRATION FEE

A late registration fee of \$10 is charged to those 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 the late registration fee is charged.

## CANCELLATION OF REGISTRATION

After students have registered, if they should decide before classes begin not to return to Eastern, they must initiate a cancellation of registration form in person or by letter through the Registration Office, Briggs Hall. If students have applied for University Housing, they must also cancel the contract in the Housing Office. This is necessary for cancellation of tuition and room and board assessments.

## WITHDRAWAL FROM THE UNIVERSITY

To be eligible for any adjustment of tuition or housing assessment after classes have begun, a withdrawal from the University must be initiated in person or by letter through the Registration Office, Briggs Hall. The date the request is made to the Registration Office or the postmark date will be used in determining the amount of any assessment adjustment.

1. 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, less a late withdrawal fee of \$10, will be made during the first three days of classes. Actual dates are printed in the *Class Schedule* for each semester and session.

2. 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 15th 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.

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

## DECREASE IN ACADEMIC LOAD

1. 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.

2. A credit adjustment of 50 percent of the difference in tuition assessment for the fall and winter semesters will be made to those students who decrease their academic load between the sixth and 15th 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.

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

## ACCOUNT ADJUSTMENTS AND REFUNDS

An appeals process exists for students or parents who feel that individual circumstances warrant exceptions from published policy, as stated within those sections under "Withdrawal from the University" and "Decrease in Academic Load." The appeals process is as follows:

First Step: Contact Patrick Doyle, general supervisor of student accounting, Briggs Hall (313-487-3335). Explain your extraordinary circumstances, and request an appropriate resolution. If request is denied, you may then:

Second Step: Contact Mary Brooks, assistant to the vice president for business and finance, 137 Pierce Hall (313-487-2031) for final decision and resolution.

## GRADUATION FEE

A graduation fee is charged to each student who makes application for graduation. The fee is non-refundable and is assessed only once for each degree.

Undergraduate Degree ..... \$10.00  
Master's and Specialist Degrees ..... \$15.00

## HEALTH SERVICE FEES

All undergraduate and graduate students registering for a total of seven or more credit hours in the fall or winter semesters, and all undergraduate students registering for a total of five or more credit hours in the spring or summer sessions, will

be charged a non-refundable Health Service participation fee of \$13.50 per semester for fall and winter semesters, and \$6.75 per session for the spring and summer sessions. Payment of this fee will entitle participants to Health Center services at reduced rates.

Undergraduate students registering for less than the aforementioned number of credit hours, graduate students, student spouses, faculty and staff and their spouses, may avail themselves of the Health Center services, but at somewhat higher rates. These persons may, at their option, also pay the participation fee at Snow Health Center and thereby become eligible for the reduced rates. The complete schedule of health service fees is available at Snow Health Center.

## APPLIED MUSIC FEE

All students accepted for private music lessons will be assessed an applied music fee.

Applied music fee rates for 1981-82 were:

Music majors:	\$60.00 per semester for all instruction.
Other University students:	\$60.00 per semester for one-hour lesson. \$30.00 per semester for half-hour lesson.
Students from public schools, the community and EMU staff and families:	\$90.00 per semester for one-hour lesson. \$45.00 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.

## STUDENT ACTIVITIES FEE

A student activities fee of \$2 per semester is assessed to each student who registers for the fall and/or winter semester.

## OTHER COURSE FEES

Fees are assessed at the close of the program adjustment period to cover extra costs and materials involved with certain courses. At present, these courses carry special fee assessments:

Fine Arts	Multi-Media, Printmaking, Ceramics, Textiles, Jewelry, Sculpture, 3-D Design
HPER&D	Snow Skiing, Trap and Skeet Shooting, Recreational Shooting, Bowling
Business & Industrial Education	Typing Courses, Calculator Applications
Speech and Drama	Fundamentals of Film Production

## PLACEMENT BULLETIN

A charge of \$15 for 6 months or \$25 per year is made for each subscription to the CAREER LOCATOR, the Career Services Center's weekly job vacancy bulletin. The LOCATOR is inclusive and advertises education, business, human services and government job vacancies. It also alerts students to all upcoming on campus interviews.

## TRANSCRIPT FEE

Each student is provided one official transcript without charge at the time diplomas are mailed.

A charge of \$3 is made for each additional transcript.

## BOARD AND ROOM FEES

See "Student Expenses and Schedule" below or the Residence Hall program brochure.

(University charges are set by action of the Board of Regents and may be changed without notice.)

## VEHICLE OPERATION AND PARKING

All students meeting the requirements of the law and who live in University housing or are defined as commuting students are eligible to maintain and operate a motor vehicle on campus. Motor vehicles are required to be operated within the provisions of the Traffic, Parking and Pedestrian Ordinance of the University.

Registration of motor vehicles used by commuter students is not required. Parking for commuter vehicles is available at several locations on campus. An entry or meter charge is required at several of these locations. For students parking in the central campus area (south of the railroad) or in the parking structure, the rate is 25¢ per entry or exit.

Further details are printed in the Ordinance and in the Parking and Traffic Regulation brochure.

## FEES SUBJECT TO REVISION

All University fees and charges are subject to change by action of the Board of Regents.

## STUDENT EXPENSES

### Estimated Academic Year Costs (Residence Hall Students)

The following represent typical actual expenses for a single dependent student, Michigan resident, taking 15 undergraduate credit hours each semester, living in a University residence hall, and attending the full academic year (fall and winter semesters).

Tuition and Fees .....	\$1,125
Books and Academic Supplies .....	200
Residence Hall Room and Board .....	2,020
<b>Total University Costs .....</b>	<b>\$3,345</b>

Estimated additional cost of personal, transportation and miscellaneous expenses .....

Personal expenses include such things as clothing, medical expenses, recreation, snacks and personal toilet articles. Out-of-state students should allow for additional transportation costs.

Students can anticipate the following total costs (Michigan resident tuition and fees, books, room and board, personal and miscellaneous expenses and transportation) for an eight-month academic year (based on 1981-82 costs).

Single Dependent Student .....	\$4,180
(Residence hall)	
Single Dependent Student .....	\$3,070-\$3,750
(Commuting from home)	
Single Dependent Student .....	\$4,570
(Apartment)	
Single Independent Student .....	\$4,670
(Apartment)	
Married Student — No Children .....	\$7,350 *
Head of Household With One Child .....	\$7,140 **

\*Increase total by \$1000 for first child, \$900 for second child, and \$800 for each additional child. Increase for additional tuition and book costs if husband or wife is a student.

\*\*Increase total by \$900 for second child and \$800 for each additional child.

## Schedule of University Charges Per Semester

(University charges are set by action of the Board of Regents and may be changed without notice)

Item Due	1981-82	Amount When Due
Tuition for 15 hours		
Michigan Resident (\$37.50 per hour) .....	\$562.50	In accordance with
Out-of-State Resident (\$93.00 per hour) .....	\$1,395	University payment plan
Registration Fee — All Students .....	\$20	At Registration
Student Government Fee — All Students .....	\$2	With Tuition
Health Center Fee — All Students with seven or more hours .....	\$13.50	With Tuition
Music Fee — Music Majors .....	\$60	With Tuition
Other students taking an applied music lesson .....	\$30-60	With Tuition
Residence Hall Room and Board .....	\$1,010	In accordance with
(double room with 20 meals per week)		University payment plan

# FINANCIAL AID

Five forms of financial aid are available to Eastern Michigan University undergraduates. Scholarships, grants, awards, loans and part-time College Work-Study employment are administered under a coordinated program of financial assistance. The purposes of Eastern's financial aid program are to recognize outstanding achievement and special talents and to assist qualified students who have limited financial resources.

Further information about financial aid programs, application procedures, and other aspects of financial aid is available on request from the Office of Financial Aid, second floor, Pierce Hall.

Financial aid applicants are considered for all types of financial aid for which they are eligible. During 1981-82 almost 10,000 students received some financial aid. Scholarships, grants and awards range from small amounts up to full tuition and room and board. Scholarships, grants and awards for any school year are awarded in the spring preceding that year. Qualifications may vary, but in general scholarships and awards are based on academic record, special talents, personal qualifications and financial need. Grants, loans and College Work-Study eligibility are based on financial need.

Applications for need-based financial aid for new and returning students are available at the Office of Financial Aid, 203 Pierce Hall, (313) 487-0455, where professional advisers are available throughout the day. All students applying for aid based on need must submit a Financial Aid Form (FAF) to the College Scholarship Service or a Family Financial Statement (FFS) to the American College Testing Program. FAF's and FFS's are available from high school and community college counselors and the Office of Financial Aid. Applications for achievement scholarships and talent awards not based on financial need are available from the Office of Admissions (new students) and the Office of Financial Aid (returning students).

## NEED-BASED AID AWARDED BY EMU

### COLLEGE WORK-STUDY PROGRAM

The federally-funded College Work-Study Program provides full-time, enrolled students with funds through employment. The student may be employed on-campus or at one of the participating off-campus agencies. Approved students may work a maximum of 20 hours per week. The hourly rate of pay is determined by the skills required for the job. Approval for possible employment under College Work-Study Program is based on student need. Recipients must be U.S. citizens or permanent U.S. residents.

### NATIONAL DIRECT STUDENT LOANS

The federally-funded National Direct Student Loan program makes available low interest, long term repayment funds up to a maximum of \$1,000 each academic year (\$2,500 for graduate students) to full-time students at Eastern Michigan University. The amount of the loan award will vary with the student's financial need. Recipients must be U.S. citizens or permanent U.S. residents.

### SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS

All full-time, enrolled undergraduate students admitted to the University are eligible for consideration. Approval and amount of each award are determined by the student's need for funds. The maximum yearly grant is \$1,000. Recipients must be U.S. citizens or permanent U.S. residents.

### UNIVERSITY GRANTS

The Board of Regents has made grant funds available with requirements similar to the Supplemental Educational Opportunity Grants Program.

### NURSING LOANS

Federally-funded Nursing Student Loans are available to full-time undergraduate nursing students with demonstrated financial need. Loans normally are limited to a maximum of \$1,000 per academic year. Recipients must be U.S. citizens or permanent U.S. residents.

### NURSING SCHOLARSHIPS

This federally-funded program assists undergraduate nursing students of exceptional financial need. Scholarships normally are no more than \$1,000 per academic year. Recipients must be U.S. citizens or permanent U.S. residents.

## ACADEMIC EXCELLENCE AND ACHIEVEMENT AWARDS AND SCHOLARSHIPS

Eastern Michigan offers scholarships and awards not based on financial need to recognize academic excellence and special talents. All eligible students are encouraged to apply for Eastern Michigan Scholarships and Awards not based on need. These include the following awards:

- Regents Scholar Awards
- Recognition of Excellence Awards
- Departmental Uniqueness Awards
- Campus Leader Awards

Applications and information are available from the Office of Admissions.

Eastern Michigan offers service awards in speech and dramatic arts and music and intercollegiate athletic awards for men and women. Information is available from the Speech, Music and Athletic Departments.

### ENDOWMENT FUNDS

Eastern Michigan University also administers a number of endowed scholarships. Most of these scholarships are restricted to use in compliance with donor intent. They tend to be awarded to members of particular societies or departmental majors. Some, however, are more general in their criteria. Students apply through the Office of Financial Aid for endowment consideration. Most endowments are for returning students only. A complete listing of endowed scholarships is available from the Office of Financial Aid.

## OTHER RESOURCES AVAILABLE

### PELL (BASIC) EDUCATIONAL OPPORTUNITY GRANTS

This federally-funded program assists undergraduate students with considerable financial need who are U.S. citizens or permanent U.S. residents. Students apply either by answering the (PELL) question on the FAF or FFS or by applying directly to the (PELL) Program for eligibility determination. In either case students receive a Student Award Report (SAR). Eligible

students then submit the SAR to the Office of Financial Aid for final award determination. Grants range from \$200 to \$1,658, less expected family contribution. Amounts are reduced if federal funding is not sufficient. Applications are available from high school counselors, and the Office of Financial Aid.

## GENERAL AND SPECIAL SCHOLARSHIPS

Scholarships offered by associations, clubs, agencies and corporations are available to Eastern Michigan University students. Some are offered to entering freshmen, some to students already in the University. Qualifications and eligibility for these scholarships vary considerably. Further information about these and other scholarships is available from the Office of Financial Aid.

## STATE OF MICHIGAN COMPETITIVE SCHOLARSHIPS

State of Michigan Competitive Scholarship awards pay tuition and fees for the full college year. Scholarships are awarded on the basis of academic potential and financial need. Interested students should obtain further information from their high schools. Annual renewal may be applied for providing the student maintains a satisfactory academic record in an accredited college or university in the state of Michigan and has financial need as determined by the FAF or FFS.

## NATIVE AMERICAN TUITION BENEFITS

Native American students who are residents of Michigan and have at least 25% Native American blood are eligible for tuition payments. Students should contact the Michigan Indian Commission in Lansing for further information and to apply for certification of eligibility.

## ARMY ROTC SCHOLARSHIP PROGRAMS

Two programs are designed to offer financial assistance to outstanding young men and women who are interested in completing the ROTC program and pursuing the army as a career. Scholarships may be awarded for one, two, three or four-year periods to any citizen of the United States who meets the criteria. The four-year program is open on a selective basis to high school seniors who apply and intend to pursue ROTC at a college or university. The one to three-year scholarships are reserved for those students who are enrolled in the ROTC program on campus. Nominations for two-year scholarships are made by a faculty board. All scholarships provide full tuition, textbooks and laboratory fees in addition to pay of \$100 per month for the period the scholarships are in effect. The scholarships are provided under the provisions of Public Law 88-647. For further information, contact the Military Science Department.

## PUBLIC ACT 245

Act 245, Public Acts of 1935, was created to provide educational opportunities for children of certain soldiers, sailors, marines and nurses. Students applying for payment of tuition under Act 245 must file an application with the Michigan Veterans Trust Fund in Lansing.

## VETERANS BENEFITS

All veterans eligible for education benefits under the new G.I. Bill must furnish the Veteran's Affairs Office at the University their 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 failed to maintain satisfactory academic progress.

They must complete the necessary registration with the University and pay the full tuition and fees. Their further responsibilities of verifying registration each semester and making satisfactory progress toward a degree will be explained at the Veteran's Affairs Office, 217 Goodison.

## GUARANTEED STUDENT LOANS

Eastern Michigan University is cooperating with the Michigan Higher Education Assistance Authority and Michigan banks to make loans available to Eastern Michigan University students. Loans are available up to \$2,500 per year (\$5,000 for graduate students). The federal government pays the loan interest while the student is in school. Applications may be obtained from a participating bank, savings and loan association or credit union or by writing to the Student Financial Assistance Services, Box 30008, Lansing, Michigan 48909. Other states have similar guaranteed loan programs. (Guidelines and eligibility may change pending federal legislation).

## STATE DIRECT LOANS

The State Direct Loan Program is similar to the Michigan Guaranteed Student Loan Program. State Direct Loans are available as a last resort for students denied a Michigan Guaranteed Student Loan by a private lender and for students who do not have an account relationship with a bank. Additional information and applications are available from the Office of Financial Aid.

## MICHIGAN VETERANS TRUST FUND LOANS

The Michigan Veterans Trust Fund is available to Michigan veterans as defined in Act No. 9 of the Public Acts of 1946 as amended, or their legal dependents or the children of deceased veterans. The applicant must be enrolled as a full-time student and have need for a loan. The loan may not exceed \$600 and is repayable, without interest, within six months. Additional information is available in the Office of Financial Aid.

## SMALL LOAN FUND

The Small Loan Fund provides small (\$15 maximum), short-term interest free loans to meet the requirements of an emergency. Loans are available at the Cashier's Office, Briggs Hall.

## UNIVERSITY SHORT TERM LOANS

Part-time and full-time students faced with emergency educational expenses and who (1) currently are enrolled at the University, (2) have earned previous credit at Eastern, (3) who qualify academically (minimum 2.0 "C" undergraduate, 3.0 "B" graduate) and (4) are eligible to receive short-term loans from the funds donated by or in memory of the following groups or individuals:

Frederick Alexander  
Anonymous  
Associated Women Students  
Estelle Bauch  
Joseph M. Bertotti  
Martha Best  
Carrie B. Bockheim  
Mildred A. Bolt  
James "Bingo" Brown  
Elisabeth Carey  
Chadsey Senior High School

Glenn O. and Mary P.  
Chappell  
Marinetta Goodell Coryell  
Creole Petroleum  
Corporation  
Ethan B. Cudney  
Daughters of American  
Revolution  
Rachael J. Davidson  
Effie Belle Dean  
Detroit Panhellenic

Anna Dobbins  
English Club of Eastern  
Michigan University  
Forum Club of Ypsilanti  
General Students of Eastern  
Michigan University  
May Olivia George  
Orlo M. Gill  
Mary A. Goddard  
Bertha Goodison  
Charles O. Hoyt  
Kappa Psi Alumni—Mary E.  
Hatton  
Kappa Alpha Psi  
Kellogg Foundation  
Samuel B. Laird  
John Jacob Lamb  
J. Don and Christine Lawrence  
Paul Mancell  
Joyce Roser McKibbon

Allen L. Miserez  
Oscar David Morill  
Hilon E. Morrow  
Frederick J. Newton  
Marshall O'Berg  
John D. Pierce  
Bessie Leach Priddy  
Estabrook Rankin  
Dimon H. Roberts  
Grace E. Roberts  
Abigail Roe  
Roosevelt High School  
Senior Classes  
Glenadine C. Snow  
Florence Crane Sterner  
Mary Ilo Swift  
Genevieve M. Walton  
Ella M. Wilson  
Joseph Conrad Worzniak  
Ypsilanti Womens Study Club

# ACADEMIC POLICIES

## THE ACADEMIC YEAR

The academic year is divided into two semesters of 15 weeks each and two sessions of seven and one-half weeks each. In addition, special workshops are offered frequently between semesters/sessions. Within each semester/session, there is a variety of scheduling options, such as evening courses, weekend seminars, two-week workshops as well as six-week sessions. New students may begin their work at Eastern any semester or session. The University calendar is printed at the front of this catalog.

## CLASS ATTENDANCE

Students are at the University primarily for the sake of their intellectual growth and development. Regular attendance and active participation in classes are important elements in the learning process. They also provide appropriate opportunities for the evaluation of the student's progress.

Students are personally responsible for the satisfactory completion of the course work prescribed by their instructors. This means specifically that they are expected to attend classes regularly, and that they are 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 a 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.

## CREDITS

The unit of work or credit is the "semester hour." A semester hour is the credit granted in a course meeting at least one hour each week for one semester. Credits earned on the term or quarter hour basis at other institutions are converted to semester hours by multiplying by  $\frac{3}{4}$ .

## CLASS LEVELS

For purposes of figuring class levels, the following hour classifications are used, counting academic credit hours only:

Class	Semester Hours
Freshman	0-24
Sophomore	25-54
Junior	55-84
Senior	85 or over

## COURSE LEVELS

When selecting courses, students should be aware of the general course numbering pattern in the University. In particular, course numbers primarily indicate the academic level of the course as follows:

COURSE NUMBER	ACADEMIC LEVEL
100-199	Introductory
200-299	Intermediate
300-499	Advanced

Courses numbered 500 and above are intended primarily for graduate students, but are open in some cases to seniors. Courses numbered in the 600's and 700's are exclusively for graduate students.

**Introductory** courses, as designated above, are those in which the academic level at which the course is taught is appropriate for students who have had no course work at the university level in the discipline in question. **Intermediate** courses are those in which the academic level at which the course is taught presupposes that the students enrolled are familiar with the content or methods, or both, of the discipline as presented in the introductory courses. **Advanced** courses are those in which the academic level at which the course is taught presupposes that the students enrolled are familiar with and able to work with the content, concepts, and methodology of the discipline at a level appropriate to that of undergraduate majors in the discipline.

In the description of courses here and in the semester Class Schedule, *prerequisite* refers to a course or courses which must be completed with credit and to other requirements and cautionary information that a student must heed before taking the course described. Because it will be the student's fault for ignoring the prerequisites, anyone not meeting prerequisite requirements for a course may be required to drop it. For courses for which no prerequisite is stated, particularly for 200, 300 and 400-level courses, the student is reminded that these courses are nonetheless taught at the academic levels described above.

## ACADEMIC COURSE LOAD

The recommended full-time academic load in each of the fall and winter semesters is 16 hours (15 with student teaching). During the seven and one-half week spring and summer sessions, the academic load is six to eight semester hours while that for the six-week summer session is five to six hours.

Occasionally an increased academic load is found to be necessary and desirable. Before registration for an academic load of more hours than recommended above, consultation with the student's adviser is highly recommended. The following two restrictions are placed on increased academic load:

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

## FINAL EXAMINATIONS

The responsibility for the evaluation of a student's achievement in a course rests with the instructor of the course.

Whether or not that evaluation shall include a 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," except when the requisite conditions for granting an "I" are present.

Students are to take their examinations with their regular classes at hours indicated on the schedule. If students find that they have three examinations scheduled on one day, they may request the instructor of the class having the first examination of the day to arrange for them to take the examination at another time. If they find that they have four examinations scheduled for one day, they may request the instructors of the first two examinations to make arrangements so that they have to take no more than two in one day. They 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 instructor. If arrangements are not satisfactory, students may appeal to the head of the department in which the course is offered.

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

All special examinations must be concluded before the last day of final examinations in order to meet the deadline for turning in grades.

## GRADES

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

Grade	Significance	Grade Points per semester hour
A	Exceptionally high order	4.0
A -		3.7
B +		3.3
B	Distinctly above the average	3.0
B -		2.7
C +		2.3
C	Average	2.0
C -		1.7
D +		1.3
D	Below average	1.0
D -		0.7
E	Unsatisfactory (denoting failure)	0
CR	Passing grade in Credit/No Credit courses	0
NC	Failing grade in Credit/No Credit courses	0
S	Passing grade in Pass-Fail elections and credit for certification in student teaching courses	0
P	Passing grade in student teaching but not at level sufficient for certification	0
U	Failing grade in Pass/Fail and in student teaching elections	0

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

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

If a student discontinues attending a class without officially withdrawing from the class, the grade of "E" will be assigned for the course. The grade of "W" will be assigned only when an official withdrawal has been completed.

Credit for a course in which the grades of "E" or "U" have been received can be earned only by repeating the course.

Any attempt to change an individual grade 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. 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.

Note that the grade of "I" is covered by a separate set of requirements.

Normally within one week of the end of each semester, the University mails a grade report for the term just completed to the student's home address. Undergraduate students' academic records are kept on their permanent record card in the Academic Records and Certification Office, room 5, Pierce Hall. Unless there are past due financial obligations, students may get an official transcript of their complete record by requesting it in writing from that office, upon paying the transcript fee indicated on page 17 of this catalog.

## INCOMPLETE GRADE

An "I" is awarded only when a student's work has been of acceptable quality ("C" or better), but the required amount has not been completed because of illness, necessary absence or other satisfactory reasons. It is never applied to poor work or to non-attendance of class by the student. It means that the student has informed the instructor of the reason for the requested incomplete, and the instructor has agreed to the request.

An "I" grade must be removed within one calendar year from the end of the semester or session in which that grade was given. The time removal of an "I" may be extended upon written recommendation of the instructor and approval by 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. This policy concerning "I's" became effective April 19, 1975.

## SCHOLARSHIP INDEX

The total number of grade points acquired, divided by the total number of semester hours taken which carry grade points, gives the scholarship index, sometimes called the "grade point average." See page 14 for calculation of the grade point average for returning or transfer students.

## AUDITING OF COURSES

A student may be permitted to enroll in a course as an auditor, that is, one who merely attends class to "hear" or visit. No credit is awarded for an audit.

Subject to the approval of the head of the department offering the course, students wishing to audit a course must register for it just as for any other class, and then also turn in at registration a "permission to audit" card with the required approval.

The student's intention to audit a course rather than to take it for credit must be established at the time of registration. Shifting from credit to audit or from audit to credit is not permitted after the last day that classes may be added or sections changed.

Tuition and fees for enrolling in courses for audit are the same as for enrolling courses for credit.

Under provisions of the University staff benefits program, full-time staff, faculty, and faculty spouses may audit classes without regular registration by completing an approval process initiated at the Staff Benefits Office, 112 Welch Hall.

Except for a staff benefits audit, no person is allowed to attend class unless officially registered on a credit or audit basis with appropriate fees paid.

## ADVANCED PLACEMENT

Eastern Michigan University participates in the Advanced Placement Program conducted by the College Entrance Examination Board. It awards college credit and advanced placement to a maximum of 12 semester hours for work in college level courses taken in high school and supplemented satisfactory scores on national examinations of the program. Complete information is available on request to the Admissions Office.

## CREDIT BY EXAMINATION AND VALIDATION

Credit by examination, validation and CLEP are designed to translate a person's previous educational and/or life experiences into appropriate academic credit.

Credit by examination is available through academic departments when CLEP examinations are not appropriate.

A) Regulations governing Credit by Examination are as follows:

1. The applicant must be admitted to Eastern Michigan University.
2. Prerequisites must be met before a credit by exam may be considered for any course.
3. Credit will normally not be awarded for any course below the level of a course for which the student already has credit or which the student is taking.
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 shall have presented evidence of sufficient further study of the subject to justify re-examination.

B) Regulations governing validation are as follows:

All college-parallel credit earned at accredited community and junior colleges will be recorded on the

student's official record at Eastern Michigan University at the time the student is admitted and the transfer is completed.

E.M.U. may require validation of community and junior college credit for 300 and 400 level EMU courses. Two ways to achieve validation 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.

C) Procedures for Credit by Examination and Validation

1. Pick up, fill out and return application for credit by examination/validation to the Academic Records and Certification Office. Eligibility to sit for credit by examination/validation will be determined by the Academic Records Office.
2. Take paper provided by 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 is agreed upon, the student will validate permission form by paying the fee to the Cashier's office, EMU.
4. The student will present 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 exam 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 permission form indicating receipt of instructor's evaluation.
6. Department head will forward permission form to the Academic Records and Certification Office.

## COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

The University also participates in the College Level Examination Program of the College Entrance Examination Board and grants credit to students who have received undergraduate admission to the University and successfully pass approved examinations.

The Academic Services Center provides current information on the CLEP program, and some CLEP examinations are administered on campus.

Tests are given at centers operated for the College Board by Educational Testing Service. The College Board scores the tests and reports the scores to the University and to the student. A CLEP Bulletin of Information for Candidates may be obtained from the Academic Services Center. Test descriptions and sample questions are also available. The bulletin lists centers, dates of examinations and fees. The following regulations govern granting a CLEP credit at Eastern Michigan University:

1. Students who have been granted undergraduate admission at EMU may be granted CLEP credit.

2. EMU will honor CLEP credits as transfer credits when received as part of a transcript from an accredited two- or four-year college or university.

3. CLEP credit may not be granted when its acceptance would duplicate college-level work already taken. Specifically excluded from credit by this provision are CLEP examinations which are equivalent to any of the following:

a. Courses which have been taken at another college or university and which are transferable to EMU

b. Advanced Placement Program courses which are applicable at EMU

c. Courses already taken or in progress at EMU

d. Courses at a lower level than courses for which credit has already been granted in the same subject area.

Eastern Michigan University recognizes the following CLEP examinations for credit in the courses indicated (maximum up to 30 hours):

Subject Exam	Score	Course Credited or Waived	Credit Hours
<b>College of Arts and Sciences</b>		Waived to taken an advanced composition course.	
*College Composition	55-64	ENG 121 English Composition	3
	65		
*English Literature	55-64	Waived to take 2 advanced literature courses	
	65	LIT 101 and 102 Reading of Literature	6
Introductory Macroeconomics	50	ECO 201 Principles of Economics I	3
Introductory Microeconomics	50	ECO 202 Principles of Economics II	3
College Algebra	53	MTH 105 College Algebra	3
Trigonometry	53	MTH 107 Plane Trigonometry	2
Elementary Computer Programming	51	CSC 137 Introduction to Computer Programming	3
*Calculus with Analytic Geometry	55	MTH 120 Calculus I	4
American Government	50	PLS 112 American Government	3
General Psychology	50	PSY 101 General Psychology	3
Biology	46-50	BIO 105 Biology and the Human Species	4
		Credit for BIO 105 and satisfaction of prereq. for BOT 221 and ZOO 222	
General Chemistry	48	Take BIO 106 concurrently with BOT 221 or ZOO 222	
Introductory Sociology	47	CHM 131 and 132 General Chemistry	9
<b>College of Business</b>		SOC 105 Introductory Sociology	3
Introduction to Business Management	50	MGT 382 Introduction to Management	3
Introductory Accounting	56	ACT 240 and 241 Principles of Accounting	6
Introductory Business Law	55	LAW 293 Legal Environment of Business	3
<b>College of Education</b>		EDP 302 Educational Psychology	3
*Educational Psychology	50	EDP 320 Human Growth and Development	4
*Human Development	50	EDP 340 Intro to Measurement and Evaluation	2

\*Essay required: A pass mark must be received in both objective and essay portions of exam.

## CREDIT/NO CREDIT OPTION

A credit/no credit grading option can be utilized in courses for which the standard system of letter grades does not seem appropriate. Departments wishing to offer a course on a credit/no credit basis should secure approval of their dean and the Vice-President for Academic Affairs.

Such an approved course will be designated by the symbol "CR/NC" in the class schedule. All students taking such courses will receive either "CR" or "NC" in place of the standard letter grades. Neither "CR" nor "NC" will have any effect on the student's grade point average. Courses for which "CR" is received will count toward graduation requirements, and there is no limit to the number of such courses which may be taken by an individual student.

## PASS-FAIL OPTION

Students may elect to take a course under the Pass/Fail Option for various reasons (e.g. if they wish to experiment in an unfamiliar field without jeopardizing their grade point average). Under these circumstances, the limiting features of the option are as follows:

1. It may be exercised only by juniors and seniors while in good academic standing.
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 under the Pass/Fail Option no later than the last day to drop classes (three weeks during the regular semesters).
5. Students who elect a course on Pass/Fail may cancel the option and accept a letter grade up to the last day of class before the official University scheduled final examinations.
6. The instructor will not be notified of the student's election of this option. The regular letter grade reported by the instructor will be recorded 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 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.

Applications for Pass/Fail and approval can be obtained at the Academic Services Center, 229 Pierce Hall.

Approved applications must be turned in at Registration, Briggs Hall, according to point 4 above, the dates being listed in each term's class schedule bulletin.

## REPEATING OF COURSES

A student may elect to repeat any course (for which the student is currently eligible), regardless of the grade received, with the following provisions:

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 ten different courses in the process of completing a baccalaureate degree, except by permission of the Admissions Review/Academic Standards Committee.
3. All grades earned by a student will be retained on the student's permanent record.
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. If a course taken at Eastern Michigan University is repeated at another accredited college or university, the original grade no longer will be counted in computing the EMU grade point average. The later grade will be computed as part of the transfer record.
6. If a course taken at another accredited college or university is repeated at EMU, the original grade no longer will be counted in computing transfer credits and grade point average. The later grade will be computed as part of the student's EMU record.
7. If a course has been taken and repeated at other accredited colleges or universities, only the latest grade will be used in computing the transfer credits and grade point average.

## WITHDRAWAL FROM CLASS

### \*First three weeks

Any change in the student's program occurring during this period is accomplished through the Office of the Director of Registration 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" during this period. The instructor's signature must be secured on the withdrawal form as evidence that the instructor and the student have discussed the contemplated action including possible alternatives and consequences. (In some cases other signatures are required.) Withdrawals initiated during this period are not eligible for tuition adjustment and are processed at the Registration Office, Briggs Hall. See page 15 for tuition and fee information and appeal process.

### \*After tenth week — until beginning of Final Exam Period

A "W" may be granted during this period 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, which have arisen after the 10th week of the semester, prevent the student from completing the work of the course. These circumstances must be specific and verifiable.

The decision on awarding the "W" will be made by the director of the Academic Services Center or the director's designee, based upon evidence submitted by the instructor as to the student's academic standing at the time of application for the "W" and conferences with the student. If the application is denied, and the student fails to complete the work of the course successfully, a grade of "E" will be recorded by the instructor.

\*These procedures also apply to spring and summer sessions. The exact withdrawal and deadline dates are printed in the current class schedule booklet for the session concerned.

### Notes on Procedure

For the fourth through the tenth week, a withdrawal form may be obtained from the Registration Office, Briggs Hall, or from the office of any academic department. This form, with the instructor's signature, is submitted to the Registration Office for official processing.

After the tenth week, the withdrawal request must be initiated at the Academic Services Center. The decision made on the request will be communicated in writing both to the student and to the instructor in question.

Students should not stop attending class until they have received official notice that their requested withdrawal has been approved. If a student discontinues attending a class without officially withdrawing from the class and does not take the final examination, University policy requires that the instructor assign a grade of "F" for the course.

When withdrawal from the class or from all classes brings students' academic load below the minimum number of hours necessary to qualify as a full-time student for University housing, scholarship aid, student loans or any other benefit 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.

## WITHDRAWAL FROM UNIVERSITY

An undergraduate student who finds it necessary to withdraw from all classes (withdrawal from the University) for a given session does so through the Registration Office, Briggs Hall. A student who is unable to accomplish the withdrawal in person may do so by a written request addressed to the Registration Office. The request should indicate the reason for the withdrawal. Any adjustment will be based on postmark date. The Withdrawal from the University policy is stated below. See page 15 for additional tuition and fee information and appeal process.

1. Students who withdraw during the first seven calendar days of the semester (three calendar days for spring and summer) will receive a 100 percent tuition credit adjustment and no grades will be posted. A withdrawal fee of \$10 is charged.
2. Students who withdraw during the next 14 calendar days of the semester (the next four calendar days for spring and summer) will receive a 50 percent tuition credit adjustment and no grades will be posted.
3. Students who withdraw after 21 calendar days (seven calendar days for spring and 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 University final examination period has begun.

The Eastern Michigan University Class Schedule published each session gives exact dates for tuition credit adjustment.

A student who has withdrawn from the University during the first 21 calendar days and desires to enroll in a subsequent semester or session shall follow the admission procedure for former students (re-enrollment) as described in the University Catalog on p. 14.

## Retroactive Withdrawal

The University recognizes that unexpected circumstances arise making it necessary for a student to initiate a request for a withdrawal after the completion of classes for a term. Normally, a retroactive withdrawal will be considered only for the

preceding term. The Retroactive Withdrawal Policy is stated below.

Retroactive withdrawals may be granted for either 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 of 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 the cases of severe mental or physical stress, it is usually assumed that the stress so incapacitated the students that they were not able to carry on with their university responsibilities.

In both cases, the student must initiate the request in the Academic Services Center, 229 Pierce Hall. After reviewing the request, the documented evidence and possible further consultation, the director, or designee, will recommend action to the vice-president for academic affairs.

Students with an approved retroactive withdrawal do not receive any consideration for tuition refund, and grades of "W" will be posted on their official academic record.

## ACADEMIC DISTINCTION

The term *summa cum laude* (3.90-4.00); *magna cum laude* (3.70-3.89); or *cum laude* (3.50-3.69) will appear on the diploma and permanent record (transcript) of an individual whose academic record warrants such a level of distinction.

## HONORS PROGRAMS/COURSES

Outstanding entering freshmen and other students with excellent records are offered or may request the opportunity to enroll in honors sections of some freshmen Basic Studies courses in English composition and political science. The courses offer an enriched intellectual experience for the able, interested student. Freshman students who appear qualified for these courses usually are selected before or during the New Student Academic Advising Conference and have an opportunity to discuss their decision with an adviser. Questions concerning eligibility for these courses may be directed to the Academic Services Center or the department offering the course. These courses and regulations concerning them do not require that students are majoring in the area and are completely separate from departmental honors courses and programs described below.

Honors courses are offered in several departments to qualified seniors specializing in those departments. These courses are geared to encourage creative interest, to promote subject investigation in depth and to permit overviews of subject matter fields.

To be eligible, students must have completed 20 semester hours of work on their major.

An eligible student should consult with the head of the department, who will cooperate with the student in the preparation of a systematic proposal which must include a statement of the problem, the resources or references to be used, the method by which the problem is to be solved, the amount of time required and the credit to be given. This statement must be filed with and approved by the dean of the college in which the course is taken. The honors course election is limited to two semester hours in any one semester.

The Department of Chemistry also offers an honors program. Students are selected for the program because of their interest and their performance in 131 General Chemistry I. On page 68, a more extensive discussion of this program is provided.

## ACADEMIC PROBATION

Undergraduate students are placed on academic probation when their cumulative grade point average at EMU, or from all college sources, 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 such probation has not been received from the University.

Students' probationary status results from their academic record for the semester which has just been completed, viewed in relation to their total academic record.

The University's action of placing a student on academic probation should make the student aware that the quality of the student's work must improve to meet graduation requirements and to avoid eventual dismissal. Students also should realize the need to take steps, such as seeking additional help and advice, to improve the quality of their academic performance. In this regard, students are informed, in writing, of their particular probationary status and the restrictions or conditions placed on them as a result of that status. (For example, student's course load may be restricted and ongoing conferences with an adviser may be required. Students on probation will not be permitted to carry more than a standard full-time academic load. Such restrictions and/or conditions are stipulated to help ensure the student's satisfactory progress toward graduation.) Students are informed that within the first 15 days of a semester (preferably within the first week), they should have a conference with an adviser in the Academic Services Center.

While on academic probation, students must earn a grade point average of at least 2.00 (a "C" average) in each succeeding period of their enrollment (including the spring and the summer session) until probation is removed, unless the exceptions to this policy described below under "Academic Dismissal" are granted. This requirement applies regardless of where the academic work is taken.

Academic probation will be removed when a student's cumulative grade point average at EMU and from all college sources is at least 2.00 (a "C" average).

While on academic probation, no student may register for, remain in, or receive credit for a Group IV Professional Education course offered by the following departments or divisions within the College of Education: Teacher Education, Student Teaching, Guidance and Counseling and Special Education. This includes all strictly Group IV methods classes listed by cross-reference in these departments, even though the courses are also listed by and taught in other departments. It does not include the following introductory courses: CUR 100 Introduction to Education, EDP 106 Introduction to University Study, G&C 100 Career Exploration and Decision Making, SLI 241 Introduction to Speech Pathology and SCN 251 Education of Exceptional Children.

No credit may be earned in any graduate level course (500 and above) on-campus or off-campus, while an undergraduate student is on academic probation.

## ACADEMIC DISMISSAL

Undergraduate students are dismissed academically from the University when their cumulative grade-point deficit is excessive or when they fail to meet the conditions of academic probation described above. The University Admissions Review/Academic Standards Committee may take many factors into account in making a decision in a particular student's case, but ultimately a decision is based on a student's record of academic achievement. The following clarifies current practice in carrying out this policy.

Students on academic probation who fail to meet the required grade point average of 2.00 (C average) in each period of enrollment while on probation will be dismissed academically.

Students not on academic probation whose cumulative grade point deficit at the end of any enrollment period is 13 or more will be dismissed academically. Thus, even though a student has not been on academic probation previously, it is possible to be dismissed because of the effect of one extremely bad semester.

Exceptions to the above practices may be made under the following conditions:

a. A student on academic probation who earns less than the required grade point average of 2.00 (C average) in any semester or session of enrollment, may be retained on academic probation provided this is the recommended judgment of the Admissions Review/Academic Standards Committee.

b. 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.

c. 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.

## Readmission

A student is dismissed academically for two successive enrollment periods (one of which must be a full semester), unless unusual or extenuating circumstances exist. Readmission and re-enrollment cannot take place until this time period has elapsed. Readmission is not automatic; each student must have a readmission interview to determine the advisability of the student's return.

During this period, a student may well gain the needed maturity for pursuing a degree, through work experience, travel or course work at other accredited collegiate institutions. Students will be required to support their eligibility for readmission through:

1. Documentation of their activities during the dismissal period which relate to the reasons for dismissal and which support their readiness to resume their academic career at Eastern Michigan University.

2. Earning a minimum grade point average of 2.00 (C average) if courses are taken at other accredited collegiate institutions.

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

To apply for readmission, a student must: Obtain a petition for readmission form in the Academic Services Center, 229 Pierce Hall. Complete the form and return it to the Academic Services Center well in advance of the beginning of the semester for which readmission is desired, but in any case no later than 14 calendar days prior to the first day of classes of a semester or session.

If any courses have been completed at other collegiate institutions since leaving Eastern, transcripts of such work must be included with the petition for readmission. If a student is enrolled in such courses at the time the petition for readmission is submitted, the transcripts must be received in the Academic Services Center no later than the first day of classes of a semester or session. The grade-point average for all such work must be at least 2.00 (C average) or readmission will be cancelled.

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.

## STUDENT CONDUCT AND GRIEVANCES

The University's policy and regulations relating to student conduct and conditions for dismissal or other disciplinary action for unsatisfactory conduct can be found on page 299 and also are found in the University's magazine *Spectrum*, published by the Division of Student Affairs. This orientation publication is distributed in more than 30 places throughout the University. It is handed out individually at orientation and is available throughout the year at the Admissions Office, Pierce Hall; Campus Interact Center, Starkweather Hall; and at the *Eastern Echo* Office (student newspaper) in Goodison Hall. The Grade Grievance Procedures can be found on page 300. Also, copies of the Student Conduct Code and Judicial Structure, the Grade Grievance Procedures, the Student Administrative Grievance Procedure, and the Student Employment Grievance Procedure are available at the Dean of Students Office, 214 Goodison Hall.

# DEGREES, GRADUATION REQUIREMENTS, AND CERTIFICATES

## DEGREES

The Board of Regents of Eastern Michigan University, on recommendation of the president and the faculty, confers the following degrees:

### Specialist in Arts

Information concerning this degree and a new post-master's program called Certificate of Advanced Study in Curriculum and Instruction (CAsCI) may be obtained by writing to the Graduate School.

### Master of Arts, Master of Science, Master of Fine Arts, Master of Business Administration, Master of Business Education, Master of Art Education, Master of Liberal Studies

Information concerning the requirements for the various fields in which the master's degree is offered appears in the Graduate Catalog of Eastern Michigan University.

### Bachelor of Science

The student who fulfills the requirements of a four-year curriculum qualifies for the Bachelor of Science degree unless a special degree is designated for the curriculum. For detailed requirements see catalog section entitled "Basic Studies Requirements," and the additional requirements on page 31.

### Bachelor of Arts

The student who qualifies for a Bachelor of Science degree may have the option of electing the Bachelor of Arts degree by presenting:

1. One year of college credit in one foreign language.
2. At least 75 semester hours in Groups I, II and III. (See page 32.)

### Bachelor of Art Education

The requirements of the curriculum leading to the Bachelor of Art Education degree may be found on page 53.

### Bachelor of Business Administration

The requirements of the curriculum leading to the Bachelor of Business Administration degree may be found on page 176.

### Bachelor of Fine Arts

The Requirement of the curriculum leading to the Bachelor of Fine Arts degree may be found on page 53.

### Bachelor of Business Education

The requirements of the curriculum leading to the Bachelor of Business Education degree may be found on page 271.

### Bachelor of Music Education

The requirements for the curriculum leading to the degree of Bachelor of Music Education may be found on pages 143-144.

### Bachelor of Music — Performance

The requirements of the curriculum leading to the Bachelor of Music Performance degree may be found on page 144.

### Bachelor of Music Therapy

The requirements of the curriculum leading to the degree of Bachelor of Music Therapy may be found on page 145.

### Bachelor of Science in Nursing

The requirements of the curriculum leading to the BSN degree may be found on page 257.

Eastern Michigan University offers its undergraduate students 46 different curricula leading to professional careers or graduate study. Thirteen of these are teaching curricula resulting in a bachelor's degree and a teacher's certificate. Also

available are nine pre-professional curricula, most of which are not in themselves four-year degree programs.

For all four-year curriculums, the following general graduation requirements apply:

## BASIC UNIVERSITY DEGREES

In a sense, the basic degree offered by the University is the Bachelor of Science degree. It presents the least restrictive program that meets the University's requirements for graduation. In the main, it offers students the most flexibility in the use of electives and in selection of a major and a minor.

All other curricula add requirements, specify additional courses, or have some planned program of concentration (such as majors, minors or "cores") that are required for or limited to just that curriculum. For example, some majors and minors listed later in the catalog apply only on an Elementary Education or Special Education Curriculum and would not be satisfactory as a major or minor on the Bachelor of Science degree alone.

When students say that they want a "liberal arts" degree, it usually refers to a Bachelor of Science degree program. If in addition they wish to complete at least a year of college credit in a foreign language and to elect 75 hours (and usually also a major and a minor) in groups I, II, and III, they may instead select the Bachelor of Arts curriculum as a "liberal arts" degree. All curricula, whatever the degree awarded, include at least those general requirements that satisfy the Bachelor of Science degree.

A complete listing of programs of study may be found in the Index. Details of requirements for individual programs of study are to be found on the pages indicated in this Index.

## REQUIREMENTS FOR GRADUATION

Students will be responsible for the fulfillment of the requirements or their equivalents of the Eastern Michigan University catalog in force at the time of their initial registration at a college or university or a subsequent catalog including the one in effect at the time of their graduation.

In the event students do not complete the degree requirements within seven years of the date of their original registration at a college or university, they may be required to have their credits re-evaluated by the office of Academic Records and Certification in keeping with the requirements of a more recent catalog. See special time restrictions in the description of the Nursing program.

## TOTAL HOUR AND GROUP REQUIREMENTS

Each curriculum leading to the bachelor's degree requires a minimum of 124 semester hours of academic credit. No more than eight hours of credit in physical education activity courses may be applied to this minimum of 124 semester hour, except students majoring in Physical Education, Recreation, or Dance may apply the minimum number of activity courses required for their respective majors toward the 124 semester hour requirement.

Course and credit hour requirements in each curriculum are generally organized in groups according to the following definitions:



- Group I – Language and Literature**  
Ancient language and literature; modern language and literature; English language and literature; speech and most courses as indicated in library science.
- Group II – Science**  
Agriculture; astronomy, biology; botany; chemistry; geography (certain courses as indicated); geology; mathematics; physics; physiology; hygiene; psychology; zoology.
- Group III – Social Science**  
Geography and library science (certain courses as indicated); history; political science; philosophy; economics; sociology.
- Group IV – Education**  
Education (including methods courses and student teaching).
- Group V – Fine Arts**  
Art; music.
- Group VI – Practical Arts**  
Business administration; business education; home economics; industrial education; industrial technology; military science; nursing; medical technology; occupational therapy; health administration; and courses in library science as indicated.
- Group VII – Physical Education and Health Education**  
Physical education; health education; recreation; military science.

- Group II Science and Mathematics ..... 10-12  
(No more than two courses in one department)  
One laboratory science course.  
A second laboratory science course or a course in mathematics.  
One elective course in Group II
- Group III Social Sciences ..... 9-12  
One course in American government selected from:  
PLS 112 or 113 American Government or  
PLS 202 State and Local Government  
One course in history.  
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).
- Humanities ..... 11-12  
Two courses in literature in the English Department, or two intermediate foreign language courses, or two advanced foreign language literature courses.  
One course in philosophy or religion.  
One course in art, music or dramatic arts.
- Major, minimum ..... 30
- Minor, minimum ..... 20
- Group VII Physical Education and Health ..... 2  
Physical education activity courses ..... 2  
Note: Two semester hours of military science may be applied toward this requirement.
- Free electives ..... 34-24
- Total ..... 124

## CURRICULUM FOR THE BACHELOR OF SCIENCE DEGREE

Adviser Chairperson, **Ann C. Kettles**  
Academic Services Center

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area – Groups I, II, and III and Humanities. For Basic Studies purposes, a "course" must be awarded a minimum of two semester hours of credit.

In addition to meeting the Basic Studies requirements, all students on this curriculum must complete, as a minimum, a major subject of at least 30 semester hours, and one minor subject of at least 20 semester hours.

By using electives to meet the additional requirements outlined under the junior-senior high curriculum, students may also qualify for a secondary provisional teaching certificate if they have chosen both an acceptable teaching major and minor.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	<b>Semester Hours</b>
Group I Language .....	8-12
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	

## CURRICULUM FOR THE BACHELOR OF ARTS DEGREE

Adviser Chairperson, **Ann C. Kettles**  
Academic Services Center

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the Curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area – Groups I, II, III and Humanities. For Basic Studies purposes a "course" must be awarded a minimum of two semester hours of credit.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete a minimum of 25 semester hours from Groups I, II, III, including at least one year of credit in one foreign language. The students will also complete, as a minimum, a major subject of at least 30 semester hours and one minor subject of at least 20 semester hours.

By using electives to meet the additional requirements outlined under the junior-senior high curriculum, students may also qualify for a secondary provisional certificate if they have chosen both an acceptable teaching major and minor.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

## Semester Hours

Group I Language .....	8-12
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
Group II Science and Mathematics .....	10-12
(No more than two courses in one department)	
One laboratory science course.	
A second laboratory science course or a course in mathematics.	
One elective course in Group II.	
Group III Social Sciences .....	9-12
One course in American Government selected from:	
PLS 112 or 113 American Government or PLS 202 State and Local Government	
One course in history	
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
Humanities .....	11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
(Degree requires completion of one year college credit in one foreign language under Humanities and/or Group I.)	
One course in philosophy or religion.	
One course in art, music or dramatic arts.	
Major, minimum .....	30
Minor, minimum .....	20
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Free electives .....	34-24
Total .....	124

## INDIVIDUALIZED INTERDISCIPLINARY CONCENTRATION

Adviser Chairperson, **Shirley Houseman**  
(487-2170)  
Academic Services Center

For any student whose educational, vocational, or professional goals cannot be met by the traditional majors and minors offered by Eastern Michigan University, there is another option available within the Bachelor of Science Degree—a planned individualized interdisciplinary concentration of 60 semester hours to replace the major and minor.

This program does not lead to a teaching certificate and might not be regarded by some graduate and professional schools and programs as a preferred or desirable undergraduate program. However, for the person with a clear personal goal in mind that cannot be well-served by the currently available majors and minors and especially for the students over twenty-four who are resuming their education, this offers an attractive option.

The plan of courses in the concentration will be structured to meet the student's specific goals and can include courses at other universities. It is not a smorgasbord of courses like a general studies degree, nor is it merely 60 hours of courses from one department.

## General Requirements

Any student selecting this program will be expected to meet the basic studies requirements of the University. With the assistance and approval of an individual concentration committee, the student will then develop an individual concentration program of at least 60 hours. Students completing the 60-hour program will have satisfied all major and minor requirements for graduation.

### Procedures:

The student will provide the following information to the individual concentration committee:

1. Reasons that the program cannot be pursued within the framework of the traditional major.
2. The immediate goals of the proposed program.
3. The way in which the proposed program will operate to fulfill stated educational and life objectives.
4. A detailed listing of courses which the student wishes to elect.

See the director of the Academic Services Center for aid in developing such a program.

## BASIC STUDIES REQUIREMENTS

The Basic Studies Program sets up minimum requirements which all students in the University must meet in four broad areas of study: language, science and mathematics, social sciences, and humanities. The general requirements of the program are contained in the boxed statements below, followed by regulations that interpret and apply the general statements to EMU courses.

This program is offered to provide students who graduate from Eastern Michigan University some breadth and awareness of fields other than their chosen specialization. The student should view these educational experiences as opportunities to become an educated contributor in a complex world.

The definition of "course" for Basic Studies purposes means a class taken which is awarded a minimum of two semester hours of credit. With departmental approval, two one-hour courses may be counted as a "course" toward the Basic Studies requirements.

A minimum of 40 semester hours of Basic Studies is required. Students may use courses meeting curriculum, major, or minor requirements to meet any appropriate "course" requirement below in Basic Studies. When students have fulfilled course requirements under each of the four areas, if the total credits are still less than 40 hours, they may elect to take, outside of their major or minor areas, any course available in the University to complete the required minimum for Basic Studies. Students who complete the General Humanities Program (discussed in more detail at the end of this section) will have met a total of six Basic Studies required courses indicated by asterisks in the language, social science and humanities areas.

Translated into specific areas, Basic Studies include:

### Group I Language Area. Three courses required.

1. \*One course in English composition or, if eligible, a foreign language course.
2. One course in fundamentals of speech.
3. \*One elective course in English language, in a foreign language, in speech or in library science (Group I).

Regulations concerning the selection of EMU courses in this area are as follows:

1. In general, students must complete ENG 121 or ENG 123 English Composition or ENG 119 Basic Composition to meet this requirement. Students whose SAT verbal scores are below 400 or whose ACT English scores are below 17 or who do not submit test scores must take, as space permits, ENG 120 English Composition Laboratory their first semester. PASS students are assigned to ENG 118 English Fundamentals instead of English 120 their first semester. (English 118 and 120 do not apply as credit toward the required 40 hours of the Basic Studies program. The credits do apply toward the 124 hours needed for graduation.) When these students pass English 120, they must take 121 English Composition the next semester. Students who complete English 118 must then take 119 Basic Composition the next semester to complete this requirement. Some unusually competent students have been permitted by the English Department to take composition courses more advanced than English 121 to meet this requirement.

To be eligible to use a foreign language course to meet this requirement, students must score 550 or above on the verbal part of the SAT or 25 or above on the English section of the ACT and must also have earned at least a 2.5 high school grade point average. Students in this category may elect either English 121 or any course taught in a foreign language. This is often referred to as being eligible for the "foreign language option."

2. The speech requirement is usually met by either Speech 121 or 124. Students with strong previous preparation in speech are sometimes permitted by the Speech Department to take such advanced courses as Speech 224, 350, 356, 359, or 132 to meet the requirement.

3. As the elective in the language area, students may select any course listed under "Composition and English Language" in the English Department, except that they may not apply English 118, 120, 308, nor any "literature" courses. They may select any course taught in a foreign language or CEN 223 or 234, or may select any course taught by the Speech and Dramatic Arts Department listed under "Speech" including "Communication and Public Address," "Broadcasting and Interpretation" and "Speech Science," but not including Speech 307 or any "dramatic arts" courses. They may also select any group I course taught in library science listed under "Educational Media," except EDM 100 or 314.

**Group II Science and Mathematics Area. Three courses required.**

In this area not more than two courses may be selected in one department.

1. One laboratory science course.
2. A second laboratory science course or a course in mathematics.
3. One elective course in Group II.

Regulations concerning the selection of EMU courses in this area are as follows:

1. Approved laboratory science courses are found in the Biology, the Chemistry, the Geography and Geology, the Physics and Astronomy, and the Psychology Departments. Appropriate beginning laboratory science classes include, but are not limited to: Biology 105 (also Botany 221, Zoology 222) and Biology 224; Chemistry 105, 115 together with 116, 119, 120, and 131; Geography 108, and 160; Physics 100 (students in elementary education only); 110, 115, 140, 210 and, for students with proper mathematics background, 221 or 223; Astronomy 204 plus either 203 or 205; currently Psychology 102 may apply as a laboratory science on the Bachelor of Science and Bachelor of Arts "degree only" programs (that is, when the students are not getting a teaching certificate) and on the Bachelor of Fine Arts and Bachelor of Music degrees.

2. The second laboratory science course may be any laboratory course for which the prerequisite has been met, in any of the five listed science departments, with the same restriction as above on the use of Psychology 102. Psychology 301 may be used.

The mathematics course may be any course offered by the Department of Mathematics and Computer Science for which the student is qualified, including computer science courses, and is not limited to such elementary courses as MTH 108 and 104.

Any elective in Group II, including any course offered in the Psychology Department, in any of the other science departments or in the Department of Mathematics and Computer Science.

If students select the two laboratory sciences from the same department, the Group II elective must be chosen from another department, since no more than two courses in this area may be selected from one department.

**Group III Social Science Area. Three courses required.**

1. One course in American government.
2. \*One course in history.
3. \*A second course in history or a two semester sequence in sociology-cultural anthropology or economics or geography (Group III).

Regulations concerning the selection of EMU courses in this area are as follows:

1. Students select either PLS 112 or PLS 113 American Government or 202 State and Local Government in the Political Science Department.

2. Students may select any designated 100-level course in the History Department, presently History 101, 102, 103, 105, or 123. Students may not use HIS 100 Comparative Study of Religion.

3. If a second course in history is chosen, students may select any other 100-level history course or any other History Department course for which the prerequisite is met, excluding History 100 and 481.

If students choose the "two-course sequence" in economics, it is ECO 200 American Economy or ECO 201 Principles of Economics and any other economics course. In geography, it is two courses including usually GEO 110 World Regions and any other social science (Group III) geography course for which the prerequisite is met. (Neither geography nor geology Group II courses nor Geography 347 or 348 may be applied.) In sociology-cultural anthropology, it is any two courses offered by the Sociology Department including SOC 105 Introductory Sociology or SOC 135 Cultural Anthropology or any other Sociology Department courses for which the prerequisite is met.

**Humanities Area. Four courses required.**

1. \*Two courses in literature in the English Department, or two intermediate foreign language courses, or two advanced foreign language literature courses.
2. \*One course in philosophy or religion.
3. \*One course in art, music or dramatic arts.

Regulations concerning the selection of EMU courses in this area are as follows:

1. In the English Department, most students will take LIT 100 Reading of Literature and a second course from Literature 101, 102, 103, 210, 251, or 260. Students scoring 500 or above on the SAT verbal test or scoring 23 or above on the ACT

English may elect both of their courses from Literature 101, 102, 103, 210, 251, or 260. Some advanced literature courses may with written departmental permission be elected for this requirement, but 207 Children's Literature may not be applied. In the Foreign Languages Department, students may apply two foreign language literature courses chosen from 221, 222, 341, and 342, or any other 300 or 400-level advanced literature courses.

2. Any course taught in the philosophy section of the History and Philosophy Department may apply. Philosophy 100, 110, 130, 212, 213, 215, 220, and 225 are currently available without a prerequisite or permission. For a "religion" course, students meeting the prerequisites may currently elect the following: History 100, 301, 302, 303, Philosophy 215, Anthropology 338, Psychology 225 and Sociology 320.

3. Any course (except methods classes) taught in the Art Department, Music Department, or in the Dramatic Arts section (including those listed under "Theatre" or "Drama for the Young") in the Speech and Dramatic Arts Department. The Music Department has stated that two credits from ensemble courses or applied music may be counted as "a course" to meet this requirement.

Credit earned in the following courses may not be applied to Basic Studies requirements: English 118 and 120, EDP 106, and physical education activity courses.

### Transfer Students

The faculty has stated the Basic Studies requirements in broad, general terms. Note that the boxed general statements above require courses in a certain department or discipline or of a certain type, but there is no identification of particular courses by name and number. This way of stating requirements in general terms will facilitate smooth application of transfer credits to Basic Studies requirements.

For example, if a transfer student has taken two literature courses elsewhere (as long as they are not Children's Literature course such as Literature 207), those courses would meet the Basic Studies requirement of two courses in literature, even if the courses were not exact equivalents of particular courses at this University. A similar interpretation will be applied to laboratory science courses, history courses, philosophy courses, etc.

### General Humanities Program

This program (not a major or minor) provides University students with an opportunity to fulfill up to 18 hours of their Basic Studies requirements with a series of interdisciplinary team-taught courses. The courses will be taught by faculty from the following participating departments: English, History, Philosophy, Art, Music, Communication and Theatre Arts and Foreign Languages. More extensive description of the courses and the Program can be found on page 129. The Humanities courses may be applied toward the following Basic Studies requirements:

#### Group III Social Sciences

Two courses in history

#### Humanities

Two courses in literature in the English Department, two intermediate foreign language courses or two advanced foreign language literature courses

One course in philosophy or religion

One course in art, music or dramatic arts

The General Humanities program will *not* satisfy the following Basic Studies requirements:

#### Language

One course in English composition

One course in fundamentals of speech

One elective course in English language or in a foreign language

#### Science and Mathematics

One laboratory science course

A second laboratory science course or a course in mathematics

One elective course in Group II

#### Social Sciences

One three-semester hour course in American government

Students taking courses in the Humanities Program will receive Basic Studies credit equivalent to the number of hours of humanities courses taken. The Basic Studies requirements met by each humanities course are listed next to that course in each semester's Class Schedule booklet.

## REQUIREMENTS IN MAJORS AND 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, at least two of the minors being subject fields taught in elementary grades.

2. A student who completes the specialized curricula for teachers of art, teachers of business education, teachers of industrial education and teachers of music, or the professional curricula in applied science, business administration, nursing, music therapy, industrial technology, 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 also 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.

All students, including transfer students, must complete at Eastern Michigan University the following requirements in advanced courses numbered 300 or above in their majors and minors, unless specifically exempted by the department concerned: at least nine hours in majors; at least six hours in minors; at least 15 hours in those curricula which encompass both major and minor requirements.

Credits in 118-119-120-121-123 English Composition courses, which are required, and credits in education courses do not count toward majors and minors except in cases where such courses are specifically required or indicated as permissible as part of that major or minor.

### REQUIREMENT IN GOVERNMENT

Each student must complete a three semester hour course in American government.

### PHYSICAL EDUCATION ACTIVITY AND MILITARY SCIENCE

1. All students shall present two semester hours of physical education activity credit for graduation.

2. This requirement may be met in the following ways:

(a) Veterans with at least one year of active duty may substitute their military service credit in lieu of activity courses.

(b) Any two semester hours of credit received for military science courses may, at the option of the student, be applied to fulfill the activity requirement.

(c) Students who elect neither of the above options shall complete two semester hours in physical education activity courses. This requirement may be modified or waived if, for reason of age or 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 representatives of the Department of Health, Physical Education, Recreation, and Dance, a decision as to appropriate modification or waiver of the requirement will be made to ensure maximum benefit to the student.

3. Any student may, on an elective basis, apply up to eight hours of credit for 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.

4. Students who have been in military service will be granted credit in military science as follows:

(a) 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.

(b) Those who have served for six months in time of peace in the Army, Navy, Air Force, Marine Corps, Coast Guard (including attendance at service academies), will be given credit for the first year of military science.

(c) Students who have completed two years junior ROTC will be given credit for the first year of military science, with department approval. Students who have completed three years of Junior ROTC will be given credit for the first two years of military science, with department approval.

5. Veterans who are awarded credit for military science under category (a) above are, nevertheless, eligible, if otherwise qualified, to enter the advanced course voluntarily and should consult the Military Science Department on special opportunities which are available. (See *Military Science Department Advanced Program*).

The minimum requirement for the bachelor's degree is 124 semester hours, including military science credit used for physical education requirements.

## RESIDENCE REQUIREMENTS

1. 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 campus of Eastern Michigan University. The remaining 15 hours may be taken off campus.

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

3. Students with credit from a junior or community college must earn a minimum of 60 semester hours exclusive of physical activity or junior or community college credit. When a student has earned a total of 75 semester hours, courses should not be taken at a junior or community college for transfer to Eastern Michigan University.

## SCHOLARSHIP

1. Students will not be graduated from any curriculum if their scholarship index (grade point average), based on the work of that curriculum, is less than 2.0. Credit earned at Eastern Michigan University must average at least 2.0.

2. To be eligible for graduation, a student must maintain a minimum grade point average of 2.0 in each major and minor.

## CORRESPONDENCE CREDIT

1. No more than 15 semester hours of correspondence credit may be applied toward a bachelor's degree.

2. Correspondence credit may not be applied to meet any of the residence requirements.

3. Correspondence credit does not carry grade point credit and may not be used in figuring the scholastic index (grade point average).

## LIMIT ON HOURS IN ONE SUBJECT

Not more than 60 semester hours in any one area of concentration may be applied toward the minimum of 124 hours required for a bachelor's degree.

## APPLICATION FOR GRADUATION WITH A BACHELOR'S DEGREE

A formal application for graduation must be filed in the Academic Records and Teacher Certification Office during the first week of the final session by the candidate for graduation and/or certification. The application should be filed after final registration is complete but as near the beginning of the final session as possible. Off-campus students who plan to finish in a summer session should notify the director of academic records and certification from six months to a year in advance.

Failure to meet an application deadline may necessitate the candidate's graduation being delayed until the following graduation period.

Application blanks may be obtained in the Academic Records and Certification Office and must be submitted with the \$10.00 graduation fee to the Cashiers office, Briggs Hall.

## FINANCIAL OBLIGATIONS

Students are eligible for graduation/or re-enrollment only after all of their financial obligations to the University have been met.

## PLACEMENT SERVICES

Completion of a credential file for filing in the Career Services Center is suggested before graduation. Candidates for graduation in all curricula should check with the Career Services Center to make certain that all placement forms have been completed. The credential file consists of the student's personal and job references as well as a personal data form and a course and grade account.

## GENERAL INFORMATION CONCERNING TEACHER CERTIFICATION

Teaching certificates are conferred by the State Board of Education upon recommendation of Eastern Michigan University.

The University will recommend for provisional certification only those individuals who have satisfied the curricular requirements in one of the teacher education degree programs.

The Michigan State Board of Education issues six-year provisional certificates which always expire on June 30. Certificates issued in January are valid for only five and one-half years.

Following are the certificates issued:

**State Elementary Provisional Certificate\***

Certifies the holder to teach in elementary grades (kindergarten-8 and major and minors in grade 9) in any school in Michigan.

**State Secondary Provisional Certificate\***

Certifies the holder to teach all subjects in grades 7 and 8 and major and minor in grades 9-12.

## VOCATIONAL CERTIFICATES

**State Secondary Provisional Vocational Certificate in Consumer and Home Economics Education**

Qualifies the holder to teach consumer and home economics in schools offering programs which are reimbursed by federal and state funds allocated for that purpose.

**State Secondary Provisional Vocational Certificate in Office and/or Distributive Education**

Qualifies the holder to teach office and/or distributive subjects in schools offering programs that are reimbursed by federal and state funds allocated for that purpose.

**State Secondary Provisional Vocational Certificate in Trade and Industrial Education**

Qualifies the holder to teach trade and industrial subjects in schools offering programs which are reimbursed by federal and state funds allocated for that purpose.

## PROCEDURE FOR CONTINUING CERTIFICATION

The holder of an elementary or secondary provisional certificate who wishes to obtain a continuing certificate must meet the following qualifications:

A. Teach successfully for three years subsequent to the issuance of the Michigan provisional certificate within the validity of the individual's Michigan provisional certificate.

B. Earn 18 semester hours credit subsequent to the issuance of the Michigan provisional certificate in a planned course of study. The first 18 semester hours on a master's program following the issuance of the provisional certificate is acceptable, as are other planned programs with an approved teacher training institution. A person with an earned master's or higher degree has met the academic requirements. The planned program should be approved in advance by the Office of Academic Records and Certification.

The procedure after three years of successful teaching and the earning of 18 semester hours credit in an approved planned program subsequent to the issuance of the provisional certificate is as follows:

The applicant will:

1. obtain an application blank from the Office of Academic Records and Certification.

2. fill out the application as required and return it to the Office of Academic Records and Certification.

The office will:

1. evaluate the credits earned and contact the school district of the candidate for recommendations concerning the teaching experience to ascertain if the requirements for the continuing certificate have been met.

2. recommend the candidate to the State Board of Education for continuing certification if the candidate's qualifications are found satisfactory. The Michigan State Department of Education will mail the continuing certificate to the candidate.

A holder of this certificate who has completed Eastern's curriculum requirements in art, home economics, industrial arts, library science, music, physical education, recreation or special education is eligible to teach in the specialty in grades K-12.

## OTHER PROFESSIONAL CERTIFICATES

**Certification as a Medical Technologist**

There are four certifying agencies for medical technologists. They are (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 Medical Technology office has information on each of the agencies mentioned.

**Certificate 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 Dietetics Association.

**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 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.

**International Diplomas in Business French, German and Spanish**

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

The Carl Duisberg Society, in cooperation with the Goethe House, will award 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 official completion date of degree requirements. Upon receipt of application and all credentials, a temporary permit to practice will be issued and examination date assigned. Licensure is granted upon successful completion of the State Board of Nursing Licensure Examination.

# STUDENT SERVICES

## STUDENT ACADEMIC SERVICES

Academic support services are designed to provide help and guidance to students in a variety of circumstances. Each serves specific needs and results from a concern for the student's total welfare.

1. **The Academic Services Center** is located in 229 Pierce Hall. It has three major areas of responsibility: Academic Actions, Academic Advising and Academic Support Services.

**Academic Actions** is responsible for implementing University policies in the following areas:

- a. Low scholarship, to include academic probation, dismissals, and readmissions.
- b. Withdrawal from individual classes.
- c. Pass/Fail option, overload approval, retroactive withdrawals from the University.

**Academic Advising** is the central coordinating service for the advising activities of all new and currently enrolled students, including those in some special programs. Academic Advising is the first academic contact on campus for new students. Advisers assist students in designing their programs prior to registration. Academic advisers also help students select majors, provide faculty and staff advisers with information and assistance, and counsel students concerned with career choices.

**Academic Support Services** provides the following:

a. An academic support program for a limited number of freshmen students, the PASS Program (Promote Academic Survival and Success), is administered by the Academic Services Center. During their first college year, PASS students are required to take a two-semester intensive writing course sequence (ENG 118 and ENG 119) and Introduction to University Study (EDP 106), in addition to other University coursework. This program also offers smaller classes, special tutoring assistance, and an intrusive advising program.

b. Annual meetings are organized by Academic Services staff to assist students who plan to apply to certain health occupation programs (i.e. nursing and occupational therapy). Workshops on program application and alternative decision-making are offered to students competing for admission to these limited enrollment programs.

c. Services for other special groups, such as adult returning students and freshmen business students, include specialized workshops, i.e., college survival techniques, assertiveness training and planning for careers and career change.

For additional University support services, see information on tutoring and academic support workshops offered through the Instructional Support Center, Rm. 102, Library.

2. **The Residence Hall Program** offers assistance through academic support programs such as peer tutoring and group study sessions, as well as professional and paraprofessional individual assistance from Residence Hall Program staff living in each residential unit (professional Resident Unit Administrators and student staff advisers).

3. **Guidance and Counseling Program** - The Department of Guidance and Counseling in the College of Education provides individual counseling opportunities for all students. This evening service is particularly helpful to those seeking personal or career information or who need assistance in making decisions related to personal, educational, and vocational goals. It is located in 13 Boone Hall and appointments can be made by calling 487-3270.

The Academic Services Center or the student's adviser can provide information on credit courses useful to students wishing to do career exploration, such as G&C 100 Career Exploration and Decision-making, MTP 196 Introduction to Health Careers and BE 100 Contemporary Business.

Students are also invited to use the career planning services of the following offices: Academic Services Center, Bio-Career Center, Center of Educational Resources, Guidance and Counseling Department, Home Economics Instructional Materials Center, Minority Affairs, and the Mini-Career Resource Centers in the Residence Halls.

4. The Instructional Support Center of the Center of Educational Resources provides a variety of services for currently registered students. These include tutoring, the services of a writing clinic, non credit classes in reading and study skills and ready access to non-print materials for class assignments and personal use. (See page 44 for a more complete description.)

## CAREER SERVICES CENTER

Eastern Michigan University offers a centralized service for cooperative education, student employment, and career placement for its students and alumni. The Center assists students and graduates with their career decision-making and employment needs from the time they are enrolled at EMU through their alumni years.

### Career Information Center

Within the Career Services Center there is a Career Information Center with materials concerning 1) employers seeking college graduates; 2) employers seeking students for part-time and summer employment; 3) the job search process; 4) thousands of occupations and their educational preparation and outlook; 5) the Michigan Occupational Information System; 6) self-help materials to assess one's interests, skills, and values related to occupations and educational programs.

### Student and Summer Employment

Annually thousands of students obtain part-time positions through the Student Employment Office. While the majority of these positions are on campus, a large number are in the surrounding community. They range from odd jobs and baby-sitting to extended part-time, highly skilled positions. The Job Location and Development Program of the Student Employment Office develops off-campus career-related part-time and summer jobs for students.

Summer employment opportunities are available with camps, resorts, recreation, businesses and industries, governmental agencies, etc. Such employment opportunities start to be listed about Christmas time. Many summer employers schedule on-campus interviews through the Student Employment Office.

All students must make application with Student Employment in order to be placed in part-time positions with the University. On-campus employment is limited to twenty hours per week. Students who are eligible for the College Work-Study Program first gain approval in the Office of Financial Aid, 212 Pierce Hall.

The Student Employment telephone number is 487-4040.

### Career Placement

The Center offers assistance to seniors, graduate students and alumni in seeking employment after graduation and in obtaining professional advancement throughout their career. Notices of career opportunities in business, industry, government, health and human services, and education from preschool through university level are provided.

Such assistance includes: 1) credential reference services; 2) resume and letter of application preparation; 3) interview preparation and technique; 4) Career Locator Bulletin listing current vacancies, employers' addresses and method of contact; 5) on-campus interview appointments with employer.

representatives, and 6) employer career literature, directories and job description materials. 7) Career Information Center.

It is recommended that graduates register at the Career Services Center early in their senior year and develop a credential file for future reference use.

The telephone numbers for Career Services are: Business, Technology, Human Services and Arts & Sciences, 487-0316; and Education Placement, 487-0400.

## COOPERATIVE EDUCATION

Director: **Jane K. Moehle**  
210 Goodison Hall  
487-1005

Cooperative Education is an educational strategy that integrates classroom theory and supervised work experience related to the students' career goals and/or major concentration. Co-op serves as a source of motivation for learning and provides another way for the student to derive education value from college.

Co-op work experience serves as a laboratory for problem solving based on the theory of the classroom. Cooperative Education is not only a learning strategy; it also provides the opportunity for career exploration and reality testing of the student's academic major interest. Normally, students will have their first co-op work experience in their junior year. It is essential that students indicate their interest in Cooperative Education as early as possible, preferably in the freshman year. In this way it facilitates development of an academic class schedule which will assist students in planning their co-op work placements.

### Academic Credit for Co-op

The departments offering Cooperative Education have elected to grant academic credit for co-op in recognition of the educational value of the Cooperative Education experience. A student may earn a total of 6 credits for Cooperative Education, three credits are earned for each term of full-time cooperative education work experience. Certain of the departments count cooperative education toward the major requirements for graduation; others consider cooperative education credit as elective. It is important that students determine which type of credit their major department will award for co-op education.

The program is administered by the Cooperative Education office and students are assigned to a coordinator when they apply for admission into the Cooperative Education program. The coordinator serves as a liaison between the University and the employers who participate in the program, developing co-op work opportunities and maintaining effective rapport between all participants in the program.

### Work Experiences

Business and industry, private and public agencies, and government cooperate with Eastern Michigan University in developing co-op work positions that are directly related to students' career goals and academic majors. Positions are developed with employers who will provide meaningful work experiences, supervision and assistance for the student during the work experience, evaluation of the student's performance at the completion of the work term and the standard rate of pay for the work being done.

Students are also encouraged to make their own job arrangements appropriate for co-op assignments and with the approval of the Co-op Coordinator. The work position may be created specifically for co-op students, or it may be an existing position which needs to be filled.

Coordinators assist students throughout the placement process by counseling students, assisting them in the development of resumes and interviewing technique. Students apply directly to the potential employer and are hired on their own merits. Students must register for the appropriate Cooperative Education course during each term in which they have a work assignment.

### The Work/Classroom Sequence

Cooperative Education students usually begin their work experience in their junior year; occasionally sophomores find themselves well enough prepared in their major area to start their co-op work placements. The schedule for a co-op on an alternating schedule, full-time work alternating twice with full-time study, generates six credits for two terms of co-op work. It is possible for a student to be on a parallel work assignment which entails half-time work combined with study for two consecutive terms in order to earn three credit hours. Every effort is made by the co-op office to assist students in making work plans which best suit their academic schedules and career goals.

Sample Schedule: Full-time

	1st PERIOD	2nd PERIOD	3rd PERIOD	4th PERIOD
STUDENT # 1	WORK	CLASSROOM	WORK	CLASSROOM
STUDENT # 2	CLASSROOM	WORK	CLASSROOM	WORK

Note that this schedule calls for alternate periods at work and at school, normally beginning in the junior year. Two students are often paired with the same employer, thereby keeping an opening filled at all times. Variations in length and pattern of co-op schedules are considered on an individual basis, and many factors are considered.

## SNOW HEALTH CENTER

### Health Care

The services of Snow Health Center are available to all enrolled students and their spouses. These services include physician and nursing services, pharmacy, laboratory, x-ray, tuberculin testing, immunizations, vaccinations, and allergy injections, as well as referral services to local specialists or hospitals.

The Health Center is open from 8 a.m. to 10 p.m. Monday through Thursday, 8 a.m. to 5 p.m. on Friday, and 9 a.m. to 12 noon on Saturday. It is closed on Sundays and holidays.

Specialty clinics, staffed by physician specialists, are held at the Health Center on weekday evenings for specific problems in gynecology and dermatology.



The student is responsible for payment of all Health Center charges, including those for medications, laboratory tests, x-rays, allergy injections, flu shots or other immunizations, TB tests, specialty clinic visits, doctor fees, and other special service charges, such as complete physical examinations, ear irrigations, minor surgical procedures, etc. In all cases charges at the Health Center are comparable to or lower than those of area physicians and hospitals.

Insurance coverage individually held, or through parents' plans, will be utilized when applicable. A voluntary Student Health Insurance plan, designed to help defray medical expenses in case of accident or illness, is available to students. Information can be obtained in the Snow Health Center Insurance Office, 487-1122.

A complete list of fees is available at the Health Center. The Health Center participation fee is described on page 17.

### Counseling Services

Counseling services are available to students and their spouses who are experiencing stresses or emotional problems which interfere with academic or interpersonal functioning. Counseling Services has three professional mental health counselors who provide confidential short-term and intermediate length treatment on an individual and group basis. Advanced graduate students from the Departments of Guidance and Counseling and Psychology also provide services under the supervision of the Services staff and faculty from these University departments. In response to student needs, specialized workshops and programs are offered throughout the year.

Counseling Services hours are 8 a.m. to 5 p.m. Monday through Friday. Evening appointments are available.

### Child Care

The E.M.U. Child Care Center was designed as a service to students, staff and faculty with preschool and school-age children. It aims to provide a warm, supportive, and stimulating program for children from 2½ to 12 years old while their parents are attending class, studying, or working. It is open during the evening as well as the day, and has a flexible scheduling system of hour-long blocks for parents to combine as needed to suit their schedules.

The Center is conveniently located on campus, on the ground floor of Snow Health Center. It includes a large play yard, four well-equipped rooms for the children, a room for parents and staff, and the Child Care Center Office.

The Center is open year-round whenever University classes are in session. The hours are 7:45 a.m. to 10:15 p.m., Monday through Thursday, and 7:45 a.m. to 5:15 p.m. on Friday. During summer term the Center closes at 5:15 p.m. every day. Most children are registered for a regular schedule for the entire term or semester. Drop-in care is also available, however, with advance notice, for parents who need only occasional child care. Fees are figured on the basis of an hourly rate.

The preschool program each day and evening includes arts and crafts, music, stories, science activities, dramatic play, walks on campus, outdoor play, snacks, meals brought from home, and a rest time. The school-age program is offered in the evening during the school year, and in the daytime during the summer. It includes gym and swim, arts, drama, cooking, science, sports, homework assistance and campus trips.

Enrollment begins for each term when University registration begins. Child Care Registration forms are available at Briggs Hall as well as in the Child Care Center. Please call 487-1126 for further information.

Students who are interested in working at the Center as student teachers, pre-student teachers, work-study students, volunteers or graduate student staff are also encouraged to call.

## HOUSING

### UNIVERSITY HOUSING/ FOOD SERVICE

Eastern Michigan University is committed to the development of all its students, both in the classroom and in the residence learning centers; as such, Eastern is a residence college and requires all undergraduate students to live in residence halls to the extent that space permits. The President, by authority of the Board of Regents, may make exceptions to the housing policy for a given academic year or semester.

Current implementation of the policy maintains an exempted status for all junior and senior students. In addition, freshmen and sophomore students may receive individual exemption approval upon review of their application. (Marital status, commuting status, military background, course-load, age and unique individual circumstances are all considered in review of exemption requests.) To qualify for admission and continued enrollment each student at the freshman and sophomore levels must either submit an application for residence halls, or submit an application for exemption and receive approval to live off campus.

University Housing welcomes all students. Admission to the University, however, does not guarantee the availability of University housing. Therefore, students are encouraged to make early application.

All students are responsible for abiding by local, state and federal laws affecting all citizens of the community. The University Student Conduct Code is applicable to students residing off-campus as well as on-campus.

### RESIDENCE HALL PROGRAM

University Housing recognizes that students have different needs in their living styles; consequently, a variety of physical environments and living styles from which to choose is offered to the student. Each choice, although varied in style, brings more than a simple room and board arrangement to the resident.

Significant student development resources are numerous for the Resident Hall Program participant: opportunities for participation in educational, recreational and social activities; part-time employment; convenient access to campus educational facilities and services; and the general advantages of being a full-time member of the university community. In addition, the Residence Hall Program participant has convenient access to full-time professional administrators and advisers; peer advisers and counselors on staff; and student leadership.

All students required or desiring to participate in the Residence Hall Program must submit their Residence Hall Application and Contract cards to the University Cashiers Office with a \$100.00 prepayment fee. This fee is applied toward the initial Residence Hall payment and is not refundable, except under the conditions outlined in the Residence Hall contract.

Requests for cancellation of the Residence Hall Contract must be made in writing and submitted directly to the Office of University Housing (approval of a "request for exemption" from the University housing policy does not cancel a residence hall contract). Information on the refund policy is available at the Housing Office, Basement, Dining Commons, No. 1, (313) 487-1300.

Residence hall fees for room and board for the 1981-82 academic year were \$2020 for 20 meals per week; the 15-meal option and 13-meal option were \$1990; the 10-meal option \$1960; and a no meal/room-only plan (open to students with conflicts with all other meal options, and by permission only) was \$1074. Single and triple room options will be available

providing actual occupancy levels will permit such options. The single occupancy option during 1981-82 was available for an additional \$480, while the triple was \$160 less per year. The University reserves the right to revise rates and services as need may dictate.

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.

Students assigned to halls are required to sign a contract agreeing to live in the hall for the entire academic year, or from the time of assignment to the end of the winter semester. This contract is binding. Residents may not change to another form of student housing during the period their hall contract is in effect.

### UNIVERSITY FOOD SERVICE

The Eastern Michigan University Food Service program is designed to provide a wide variety of nourishing meals in pleasant and sanitary surroundings. The food service department concurrently tries to maximize the accommodation of individual needs through optional meal plans, seconds program, special dinners, menu revisions, self-service salad bars, various entree selections, and dining hall cross-over admittance.

Meal hours have also been adjusted to minimize conflicts with classes, and special accommodations are further provided through the use of sack lunches, and early or late dinner arrangements. Weekend meal hours have also been adjusted (and extended) to reflect weekend eating habits.

Food service staff also works closely with residence student government to continually adapt the food service program to the needs of current resident students.

### 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 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).

All utilities except telephone are included in the rental fee. 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 University Housing, complete the application and return it to the University Cashier's Office with the \$50 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 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 assigned.

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. Married students who wish to apply for a University apartment should obtain an application from University Housing, complete the application and return it to the University Cashier's Office with the \$50 apartment deposit.

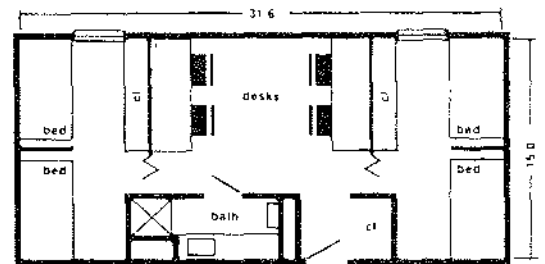
### OFF-CAMPUS HOUSING

A variety of living arrangements are available for 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 Office of University Housing does not rate, inspect, or recommend off-campus facilities.

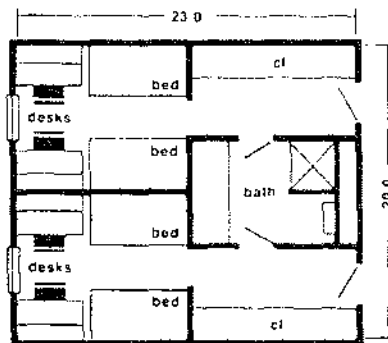
University Housing, located in the lower level of Dining Commons #1, (313) 487-1300, is available to assist students who desire advice on off-campus problems or off-campus eligibility

### TYPICAL RESIDENCE HALL ROOM FLOOR PLANS

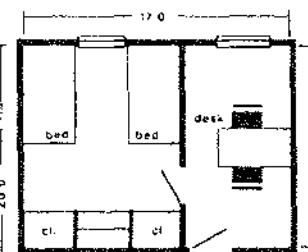
Downing, Buell, and Goddard Halls



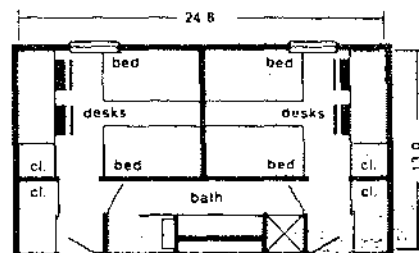
Residence Hall Towers Hill and Pittman Halls



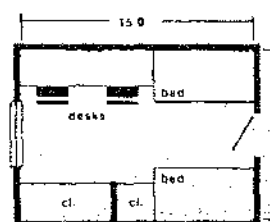
Jones Hall



Best, Phelps-Sellers and Walton-Putnam Halls



Wise Hall



# CAMPUS LIFE AND ACTIVITIES

## CAMPUS LIFE

Eastern Michigan University recognizes that learning takes place outside as well as inside the classroom. Social skills and interpersonal relationships are among the important aspects of learning that occur mostly outside of classes.

Campus Life at Eastern Michigan University is designed to provide student-oriented opportunities for growth in leadership, adherence to group goals, initiative, creativity, and self-evaluation. Through participation in Campus Life activities, students can extend classroom experiences into relevant programs which provide a participatory role in areas of their interests. Input into the governance and direction of the University can be expressed through such groups as Student Government, Residence Hall Association and the University Judicial Board.

A student might also contribute through the communications media, which includes the Eastern Echo (student newspaper), Cellar Roots (campus literary magazine) and the Aurora (the yearbook).

The Office of Campus Life provides a well-rounded extra-curricular program for EMU students. This extra-curricular program includes a number of activities, e.g. film series, concerts, lectures, residencies, guest artists, leadership development programs etc., as well as other programs and services.

In addition to the Campus Life Office, several other departments and offices contribute to the co-curricular program of the University, i.e., the Departments of Music, Dance, Art, and Speech and Dramatic Arts.

## STUDENT GOVERNMENT

The voice of students in University affairs is the Student Senate. Members are elected to the senate within their living units, at large or from major organizations.

## JUDICIAL SYSTEM

The major discipline hearing board at EMU is the University Judicial Board (UJB). Membership consists of five students, two appointed faculty members and two appointed administrators. The appellate board of the UJB is the Judicial Appeals Board. Its membership includes two faculty members, two students, and two administrative appointees.

## STUDENT ORGANIZATIONS

The activities and recognition of student organizations are guided by the Committee on Student Life. A majority of the committee's members are students, with faculty and administrative members also serving.

### FRATERNAL

Honorary and Professional

Alpha Psi Omega (Theatre)  
Beta Gamma Sigma (Business Administration)  
Eta Sigma Gamma (Health Service)  
Honor Society of Nursing  
Kappa Kappa Psi (Honorary Band)  
Mortar Board (Seniors)  
Omicron Delta Epsilon (Honorary Economics Club)  
Psi Chi (Honorary Psychology)  
Phi Kappa Phi (Scholarship)  
Stoic Society (Honor Students)

## ASSOCIATIONS, CLUBS

Accounting and Finance Club  
Administrative Management Society  
Alpha Chi Sigma (Chemistry)  
Alpha Kappa Psi  
American Guild of Organists  
American Society of Interior Design  
Arts Management Club  
Association for Computing Machinery  
Association of General Contractors  
Association of the United States Army  
Biology Club  
Chemistry Club  
CRIM Club  
Delta Sigma Pi  
EMU Players  
Economics Club  
Forensics  
Geography and Geology Club  
Home Economics Club  
Huron Guard Drill Team  
Inter-Media Group  
Management Club  
Marketing Club  
Medical Technology Student Forum  
Music Therapy Club  
National Student Nurses Association  
National Student Speech and Hearing Association  
Occupational Therapy Students Association  
Phi Gamma Nu  
Phi Mu Alpha Sinfonia  
Pre-Med Students Association  
Public Administration Association  
Raider Platoon  
ROTC Cadet Battalion  
Scabbard and Blade  
Sigma Iota Lambda (Legal Careers)  
Student Council for Exceptional Children  
Tau Beta Sigma  
Trendsetters (Fashion Merchandising)  
Women's Studies

## ADVISORY

Arrival  
Health Service Advisory Board  
Music Student Advisory Council  
Student Advisory Council

## COMMUNICATION

Alpha Epsilon Rho  
Amateur Radio Club  
Cellar Roots  
Echo (Newspaper)  
Student Radio

## COORDINATING

Adult Returning Students  
Campus Life Council (All-campus Programming)  
Constructive (Fundraising/Service)  
EMU Homecoming Committee  
EMU Student Foundation  
Graduate Students Association  
Interfraternity Council

Panhellenic Council  
Residence Hall Association  
Student Government

## FRATERNITIES (GREEK)

Alpha Phi Alpha  
Alpha Phi Omega  
Alpha Sigma Phi  
Arm of Honor  
Delta Sigma Phi  
Groove Phi Groove  
Kappa Alpha Psi  
Lambda Chi Alpha  
Omega Psi Phi  
Phi Beta Sigma  
Phi Eta Psi  
Phi Sigma Epsilon  
Tau Kappa Epsilon  
Theta Chi

## SORORITIES (GREEK)

Alpha Gamma Delta  
Alpha Kappa Alpha  
Alpha Xi Delta  
Delta Sigma Theta  
Phi Sigma Sigma  
Sigma Gamma Rho  
Sigma Kappa  
Sigma Nu Phi  
Sigma Sigma Sigma  
Zeta Phi Beta

## SOCIAL ORGANIZATIONS

Alpha Angels  
Phi Eta Psi Emeralds  
Sigma Loves of Phi Beta Sigma  
TKE Little Sisters

## RECREATIONAL

Chess Club  
EMU Fencing Society  
EMU Intercollegiate Bowling Team  
EMU Martial Arts Club  
Hockey Club  
Intramural Sports  
Pep Club  
Quad Organization  
Recreation Club  
EMU Ski Club  
EMU Club Ski Team  
EMU Skin and Scuba Diving Club  
Varsity Rifle Club  
Weightlifting Club

## RELIGIOUS

Bahar Association  
Baptist Student Union  
Campus Action Christian Fellowship  
Campus Crusade for Christ  
Delta Phi Chi-Rho  
EMU Black Gospel Choir  
Holy Trinity Newman Club  
Inter-Varsity Christian Fellowship  
Pentecostal Students Association  
United Ministries in Higher Education-Ypsilanti

United Students for Christ  
University Christian Outreach  
University Lutheran Chapel  
Way Campus Outreach

## SOCIAL CONCERNS

African Students Association  
Black Residents and Staff Coalition  
Black Student Association  
Chicano Student Association  
Chinese Student Association  
Family Housing Organization  
Gay Student Association  
Greenpeace  
International Student Association  
Minority Allied Health Organization  
Moslem Student Association  
Native American Survival Group  
Pamoja  
Preservation Eastern  
Students for Recycling  
SOS Community Crisis Center  
Student Social Work Organization  
Ypsilanti Food Co-Operative  
Democratic Socialist Caucus  
Washtenaw County Committee Against Registration and the Draft (CARD)

## ATHLETICS

Director: Alex A. Agase  
Associate Director: Paul Shoultz  
Assistant Director: Lucy Parker

The Department of Intercollegiate Athletics offers a well-rounded program of varsity sports for men and women. It is the department's aim to provide an opportunity for all students to enjoy athletics as spectator and participant.

## INTERCOLLEGIATE ATHLETICS FOR MEN AND WOMEN

Eastern Michigan is a member of the National Collegiate Athletic Association (NCAA) and competes at the Division I level. In 1971, EMU joined the Mid-American Conference (MAC) and participates in all nine of its men's varsity sports. They are baseball, basketball, cross country, football, golf, swimming, tennis, track (indoor and outdoor) and wrestling. The Hurons also field varsity teams in gymnastics and soccer. Riflery is a non-varsity sport.

The MAC is composed of ten schools, including EMU's sister institutions Central and Western Michigan along with Ball State, Bowling Green, Kent State, Miami, Northern Illinois, Ohio and Toledo.

EMU women also compete as a member of the National Collegiate Athletic Assn. (NCAA) and the Mid-American Conference (MAC). The women's varsity sports are basketball, cross country, field hockey, gymnastics, swimming, tennis, track (indoor and outdoor), volleyball, and softball.

Eligibility to participate in intercollegiate athletics requires the student athlete to satisfy all University, Mid-American Conference and National Collegiate Athletic Association requirements.

Eastern Michigan has earned international and national recognition through Intercollegiate Athletics.

## INTRAMURAL SPORTS FOR MEN AND WOMEN

A wide variety of intramural activities is provided for both men and women. All students may participate. Selected sports activities are offered on a co-educational basis, and additional offerings are provided for either men or women.

<b>Co-Educational</b>	<b>Men</b>	<b>Women</b>
Cross Country	Softball	Basketball
Softball	Football	Softball
Tennis	Tennis	Tennis
Bowling	Golf	Bowling
Basketball	Bowling	Swimming
Free Throw Contest	Basketball	Volleyball
Paddleball	Volleyball	Football
Float-A-Thon	Track	
Sports Trivia Contest	Wrestling	
Bong Show	Swimming	
	Ice Hockey	
	Weight Lifting	
	Floor Hockey	
	2-Man Volleyball	

## CLUB SPORTS

Inter-university sports competition is another program sponsored by the department or made available through a student club, organized and operated by students. At the present time, competition is available in eight sports.

# CENTER OF EDUCATIONAL RESOURCES

(University Library, Media Services and Instructional Support Center)

**Director and Professor:** Morell D. Boone

**Assistant Director and Associate Professor:** Eugene A. Holtman

**Professor:** Fred Blum, assistant humanities librarian.

**Associate Professors:** Sarell W. Beal, assistant social sciences librarian; Mary Clare Beck, documents librarian; Margaret K. Eide, coordinator, social sciences division; Joanne J. Hansen, coordinator, science and technology division; Hide I. Ikehara, coordinator, catalog division; Jessamine S. Kallenbach, coordinator, humanities division; Twyla M. Mueller, coordinator, acquisitions division; Elma M. Natt, assistant science and technology librarian.

**Assistant Professors:** Ann Andrew, acting coordinator, education and psychology division; Margaret E. Best, instructional materials center librarian; Haydee M. Cabrera, assistant science and technology librarian; Ronald P. Colman, assistant social sciences librarian; Nelly E. Doff, assistant science and technology librarian; Sibylla M. Gibson, assistant catalog librarian; J. Ronda Glikin, assistant humanities librarian; Ruth A. Gray, circulation librarian; Richard G. Oltmanns, coordinator of media services; Frances H. Saupe, assistant coordinator, acquisitions division; Keith J. Stanger, orientation librarian; La Verne W. Weber, media services; Helen M. Wilkinson, assistant catalog librarian.

**Instructional Support Center:** Helene G. Abrams, coordinator; Patricia L. Ramsay, supervisor.

**Project LOEX:** Carolyn Kirkendall, director.

The Center of Educational Resources is an integral part of the instructional programs of the University. As such, its major purpose is to provide the services, collections and facilities needed to support the University's instructional programs.

Library services are housed in the University Library building. Organized on a subject divisional system, the library collections (including books, bound and current periodicals, and microforms) are grouped into four major areas: education and psychology, humanities, science and technology, and social sciences. Special collections include an Instructional Materials Center in conjunction with the education and psychology division; a map library in the science and technology division; government documents, and the University archives. The collections number more than 485,000 volumes, 135,000 government documents, and 372,000 microforms.

Some of the special features of the University Library include small study rooms, faculty and student seminar rooms, rooms for typing and viewing microforms, as well as a center for copying paper and microform materials. There is a Reserve Reading Room for materials assigned for use in course work. Each library division maintains pamphlet files for ephemeral materials such as newspaper clippings and pamphlets.

A Library Orientation Office (Room 217H) 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 Media Services and Instructional Support Centers staff help faculty and/or departments integrate media in their instruction. Consultation is usually followed by the selection of appropriate existing media and/or production of original media to achieve educational goals.

The Media Services Center, in the basement of the University Library building, is responsible for the purchase, storage and circulation of non-print materials - films, filmstrips, phono discs, audio tape recordings, video tape recordings,

transparencies and slides. This unit also provides the equipment required to utilize effectively the various non-print materials, preview rooms for viewing films and other video materials, and the pool of audio-visual equipment for check-out and use. Charts, graphs, photographs, slides, mounted and laminated materials, and overhead visuals are produced. The Media Services Center also provides various types of television services (e.g., Campus Instructional Television System, portable recording and playback units). Media resources include some 1,400 films, 5,100 filmstrips, 6,900 recordings, 2,600 audio cassettes, and more than 3,200 hours of video tape recordings.

The Instructional Support Center (Room 102) provides a variety of services for currently registered students:

1. Free tutoring in a variety of subject areas. Current schedules are posted in Room 102.

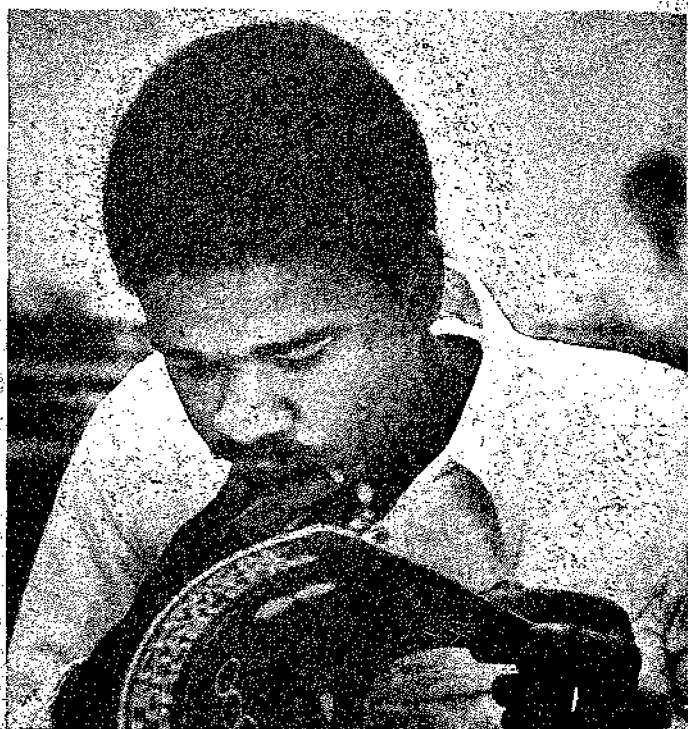
2. A Writing Clinic with student tutors (supervised by the English Department) to help both students in advanced courses and those seeking to master basic skills. Students need not be enrolled in an English class. Schedules are posted in Room 102.

3. Workshops to enhance and sharpen students' academic success skills are offered in Room 102. Some sample workshops include test-taking, vocabulary-building and time management skills.

4. Classes in Reading and Study Skills. These classes are not offered for college credit and are non-graded.

5. Audio tape recordings, phono discs, and microcomputer programs, and other non-print materials for class assignments and personal use. The Center is equipped with high quality stereo and video equipment and has microcomputers available for student use.

6. Foreign Language Laboratory. This facility, primarily for use by students taking classes in the Department of Foreign Languages and Bilingual Studies, is equipped for audio-aural assignments by either classes or individuals.



**COLLEGE OF ARTS AND SCIENCES  
COURSE DESCRIPTIONS AND  
PROGRAMS OF STUDY**

**DEAN: Donald E. Drummond  
DEPARTMENTS AND PROGRAMS**

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

## DEPARTMENTS

### AFRO-AMERICAN STUDIES

Director: Ronald C. Woods

Afro-American studies is the body of information on the history and evolving circumstances of Afro-America. It is a field of inquiry that includes many subjects, e.g., the internal development of Afro-American society, the material and cultural conditions that define it, and the domestic and global context of the Afro-American experience. The Afro-American Studies Program at Eastern Michigan University promotes the spread of knowledge on these and related subjects through teaching, research and informational activities. The Program faculty is interdisciplinary and has expertise in law, history, religion, political science and urban and regional planning.

Beyond this specific responsibility, the Afro-American Studies Program, in common with other academic units of the University, has the following objectives:

1. to provide a rigorous and lasting basic educational experience for all students;
2. to foster the acquisition and refinement of the disciplinary skills required to gather and evaluate information;
3. to provide students with an informational and methodological basis for self-understanding, for comprehending the present and future world, and for resolving the technological and philosophical dilemmas which it poses; and
4. to assist the University in meeting changing societal needs.

#### General Curricular Requirements

The program offers students a selection of courses leading to a minor in Afro-American Studies. The minor consists of required interdisciplinary courses in the Afro-American Studies Program and a series of electives. The latter may be satisfied by other courses from the program and/or by specified offerings from other units in the College of Arts and Sciences. The minor is described on page 47.

Students who plan to pursue the Bachelor of Arts or the Bachelor of Science degree may use this minor to fulfill their requirements. Any student who selects the Afro-American Studies minor will be expected to meet Basic Studies requirements as well as the major and general elective requirements of the University.

For those students desiring a more in-depth course examination of Afro-American studies, the individualized concentration is recommended. (See discussion under the Afro-American Studies Minor, page 47, and the explanation of the Individualized Interdisciplinary Concentration, page 32.)

## LIBERAL ARTS AND PROFESSIONAL CURRICULUMS

The University offers liberal arts and professional curricula, in the following areas:

1. Bachelor of Science Degree
2. Bachelor of Arts Degree
3. Bachelor of Fine Arts Degree
4. Bachelor of Music Degree (Performance)
5. Bachelor of Music Therapy Degree
6. Architecture
7. Dentistry
8. Engineering
9. Education
10. Health Services Administration
11. History
12. Journalism
13. Law
14. Library Science
15. Political Science
16. Psychology
17. Sociology
18. Theater Arts
19. Visual Arts
20. Writing
21. Pre-Medicine and Osteopathy
22. Pre-Mortuary Science
23. Pre-Pharmacy
24. Pre-Religious Careers

These programs and the various majors and minors offered are administered by the departments in the College of Arts and Sciences and are described in the alphabetically arranged Programs of Study section in the Index. The Bachelor of Science and the Bachelor of Arts Degree programs are described under the section called Degrees, Graduation Requirements and Ceremonies.



**COURSES**

New courses are identified with a bullet • .

**AAS 101 Afro-American Studies: An Introduction.**

**Three sem hours**

This course will provide students with (1) a fundamental knowledge of the Afro-American experience and culture and (2) an introduction to basic analytical and conceptual tools.

**AAS 201 Afro-American Studies II. Three sem hours**

This course, which is a sequel to 101, will provide students with the opportunity to study in depth the Afro-American experience in America during the 20th century.  
Prereq: AAS 101 Afro-American Studies: An Introduction.

**AAS 202 Black Social Movements 1880-1890s.**

**Three sem hours**

The purpose of this course is to examine the rise of black social movements, with particular emphasis on the role of Afro-Americans in the struggle for equality, manhood, and suffrage. This course will focus on this period as a part of the continued struggle for liberation.  
Prereq: AAS 101 Afro-American Studies: An Introduction.

**AAS 203 Blacks in the City. Three sem hours**

The purpose of this course is to examine the role of Afro-Americans in shaping the urban setting. The course will focus on the northern migration movement as the first stage in the development of racial crises in urban areas.  
Prereq: AAS 101 Afro-American Studies: An Introduction.

**• AAS 297, 298, 299 Independent Study.**

**One, two, three sem hours**

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 Introduction to Afro-American Studies.

**AAS 301 Afro-American Contemporary Issues Seminar.**

**Three sem hours**

This course will provide students with (1) specialized information on the Afro-American in the context of urban living and (2) primary learning experiences and perspectives into the most recent issues and problems.  
Prereq: AAS 201 Afro-American Studies II.

**AAS 304 The African Diaspora and the Black Experience.**

**Three sem hours**

The African Diaspora is the dispersion of people of African descent throughout the world as a result of the slave trade. This course will examine the process of dispersion as well as the impact of the African presence on world development.  
Prereq: AAS 101 Afro-American Studies: An Introduction.

**AAS 377, 378, 379 Special Topics.**

**One, two, three sem hours**

Each time offered, this course will focus on and explore a topic on an experimental basis, based on student interests and needs. This course can be used in completing requirements for the Afro-American Studies Program.  
Prereq: AAS 101 Afro-American Studies: An Introduction, or department permission.

**AAS 497, 498, 499 Independent Study.**

**One, two, three sem hours**

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 301 Afro-American Contemporary Issues Seminar, junior standing, and permission of the department.

**AFRO-AMERICAN STUDIES**

Adviser Chairman, **Ronald C. Woods**  
(487-3460)

**I. Afro-American Studies Minor (20 semester hours) (non-teaching)**

	<b>Semester Hours</b>
Required Courses .....	11-12
Each student who minors in Afro-American Studies will be expected to complete the following required courses:	
AAS 101 Afro-American Studies: An Introduction .....	3
AAS 201 Afro-American Studies II .....	3
AAS 301 Seminar in Afro-American Studies ...	3
AAS 498 or AAS 499 Independent Study of Afro-American Issues .....	2-3
Minor Electives .....	9-8

There are two areas of concentration or emphasis in the Afro-American Studies program. One is the communicative arts; the other is cultural sciences. Electives may be chosen from one of the two areas. Selection from both to fulfill minimal minor requirements requires permission of the director of Afro-American Studies.

**II. Communicative Arts Elective (9 semester hours)**

	<b>Semester Hours</b>
<b>AFRO-AMERICAN STUDIES</b>	
AAS 202 Black Social Movements 1800-1890s ..	3
AAS 203 Blacks in the City .....	3
AAS 304 The African Diaspora and the Black Experience .....	3
<b>ART</b>	
FA 222 African and Afro-American Art .....	3
FA 420 History of Primitive Art .....	3
<b>ENGLISH</b>	
LIT 260 Afro-American Literature .....	3
<b>DRAMATIC ARTS</b>	
SPH 151 Black Theatre: An Introduction .....	3
SPH 251 Black Theatre: Creative Problems .....	3

**III. Cultural Sciences Electives (9 semester hours)**

<b>ANTHROPOLOGY</b>	
ANT 236 People of Africa .....	3
ANT 336 Social and Cultural Change .....	3
<b>ECONOMICS</b>	
ECO 320 Labor Economics .....	3
ECO 321 Minority Workers in the Labor Market .....	3
ECO 332 Urban Economics .....	3
<b>GEOGRAPHY</b>	
GEO 322 Geography of Africa .....	3
GEO 332 Urban Geography .....	3
<b>HISTORY</b>	
HIS 103 History of Non-Western Civilization ...	3
HIS 315 History of Black Americans .....	3
HIS 340 The Middle East and North Africa to 1798 .....	3
HIS 347 History of Sub-Sahara Africa .....	3
HIS 365 The Old South .....	3
<b>POLITICAL SCIENCE</b>	
PLS 372 Government and Politics of Sub-Sahara Africa .....	3
<b>PSYCHOLOGY</b>	
PSY 340 Psychological Perspectives on Prejudice and Discrimination .....	3
<b>SOCIOLOGY</b>	
SOC 314 Racial and Cultural Minorities .....	3
SOC 306 The Urban Community .....	3
SOC 309 Culture and Personality .....	3

## Individual Concentration

The individual concentration program is designed for the student who wishes to pursue a more extensive course of study in the area of Afro-American Studies. A major is not offered at this time, but the individual concentration is an alternative which serves the same purpose as a co-major of 30 hours or an integral part of a thoroughly integrated curriculum of 60 hours. With the assistance and approval of an individual concentration committee, the student who completes the 60 hour concentration will have satisfied all major requirements for graduation. Any student who selects the individual concentration in Afro-American Studies will be expected to meet Basic Studies and general elective requirements. See Individualized Interdisciplinary Concentration on page 32 for further information.

## ART

**Department Head:** John E. Van Haren

**Professors:** Marvin C. Anderson, Barry Avedon, Richard T. Fairfield, Charles E. Fensch, Jan Michael Field, Sharon R. Harrison, Fredrick C. Hunter, Judy Loeb, John P. Loree, John N. Pappas, David W. Sharp, Susanne G. Stephenson, David D. Tammany, Jav R. Yager, John E. Van Haren

**Associate Professors:** Igor Beginin, Robert E. Chew, Lawrence L. Freeman, Elaine C. Godfrey, Sheldon S. Iden, Charles McGee, James Sandall, Ellen Schwartz, Doris A. Smith, Richard E. Washington, Patricia Williams, Ellen Wilt, Michael Zahratka

**Assistant Professors:** Beverly A. Shankwiler, Virginia Stein

administers the following programs:

the Curriculum 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 on page 224 and in the arts management program, page 86.

## GRADUATE STUDY

The Art Department offers graduate work leading to the master's degree in art education and studio art. The M.A. and M.F.A. degrees are described in the Graduate Catalog.

## COURSES

New courses are identified with a bullet •.

The art staff endeavors to fit the content of studio courses to the goal of the student, giving consideration to individual occupational needs and to cultural background.

Certain student work may be retained by the staff for exhibit, demonstration or publication.

### Advanced Placement

The Art Department will accept up to 6 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.

## Art for Non-Majors

**FA 100 Art Appreciation.** **Three sem hours**  
A course for non-specializing students. The aim is to acquaint students with art philosophies, their elements, principles and values.

**FA 101 Introduction to Art.** **Three sem hours**  
An introductory course (studio and lecture) 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 as part of the course. *Non-Art Major.*

• **FA 121 Islam: The Golden Age.**  
See Humanities, page 130.

• **FA 127 The Splendid Centuries of Austria.** **Three sem hours**  
See Humanities, page 130.

- **FA 153 From the Middle Ages to the Renaissance: Sacred and Profane Love.** Three sem hours  
See Humanities, page 130.

- **FA 177, 178, 179 Studio Experience – Non Major.** One, two, three sem hours  
Studio experience (to be determined.)  
Art studio classes for non-majors in all studio areas available in the department. Hands on approach to provide students with opportunity to develop skills. (No laboratory fee.)

- **FA 181 The Legacy of Greece.** Three sem hours  
See Humanities, page 131.

- **FA 182 The Legacy of China.** Three sem hours  
See Humanities, page 131.

- **FA 187, 188, 189 Studio Experience (to be determined)** One, two, three sem hours  
Studio experience (to be determined)  
Art studio classes for non-majors in all studio areas available in the department. Hands on approach to provide students with opportunity to develop skills. (laboratory fee may be required.)

## Art Education

- **FA 300 Creative Arts.** Three sem hours  
Planned especially to meet the needs of the prospective teacher. Problems in two- and three-dimensional media, including materials suited to the elementary grades. Appreciation of contemporary arts and teaching practices peculiar to the art field. Non-majors only.

- **FA 377, 378, 379 Special Topics – Art Education.** One, two, three sem hours  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.  
Prereq: See the Department.

- **FA 416 Art Methods and Materials.** Two sem hours  
This course should be taken in the junior year. Designed to meet the needs of the classroom. Choosing, exploring, presenting materials for creating experiences in relation to growth and development of the child.  
Prereq: Junior. Art education majors only. Not open to students on academic probation.

- **FA 417 Teaching of Art.** Two sem hours  
Understanding the purpose and responsibility of the art teacher; developing the creative potential in children; discussion of student teaching experience. Opportunities to observe and evaluate various types of art programs in the public schools. Problems, discussion, reading, panels, field trips.  
Prereq: Senior standing and art education major. Not open to students on academic probation.

- **FA 477, 478, 479 Special Topics – Art Education.** One, two, three semester hours  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.  
Prereq: See the department.

## Studio Art

- **FA 122 Two-Dimensional Design.** Three sem hours  
A foundation course dealing with an analytical approach to the study of color theory in pigments. Various concepts of design are used as vehicles for this analysis. Studio and lecture.

- **FA 123 Drawing I.** Three sem hours  
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.

- **FA 124 Drawing II.** Three sem hours  
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 Drawing I.

- **FA 210 Life Drawing.** Three sem hours  
Knowledge of form (anatomy and designed forms). Study of natural form from the model to augment and diversify creative form.  
Prereq: FA 123 Drawing I, FA 124 Drawing II or permission of the department.

- **FA 231 Three-Dimensional Design.** Three sem hours  
Basic study of three-dimensional structures and systems. Fabrications using industrial materials and equipment. Introduction to kinetics, pneumatics and electronic equipment.

- **FA 232 Representational Drawing.** Three sem hours  
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 Drawing II.

- **FA 235 Textiles.** Three sem hours  
An introductory textiles class dealing with concepts and design as they relate to fiber structures and fabric processes.  
Prereq: FA 122 Two-Dimensional Design and FA 123 Drawing I.

- **FA 301 Graphic Design.** Three sem hours  
Lettering and type design and illustration, with emphasis on layout, preparation of art work for reproduction and reproduction processes. Problems related to commercial art media and procedures used in newspaper and magazine advertising, posters and cover design.

- **FA 302 Graphic Design.** Three sem hours  
Advanced design and illustration as applied to multicolor magazine and book illustration, direct mail advertising and other areas of two-dimensional commercial design.  
Prereq: FA 301 Graphic Design.

- **FA 303 Graphic Design.** Three sem hours  
The study of structural problems and visual techniques in connection with three-dimensional commercial design problems, such as display, product design and interiors.  
Prereq: FA 302 Graphic Design.

**FA 304 Beginning Photographic Imagery.** Three sem hours  
This course introduces students to photography as an art form. Basic camera and darkroom techniques are demonstrated, with emphasis on exhibition printing. Basic photoaesthetic concepts are experienced through group projects and discussion. Students must furnish their own camera equipment.  
Prereq: FA 122 Two-Dimensional Design and FA 123 Drawing I. Art majors only.

**FA 305 Printmaking.** Three sem hours  
Acquaintance with graphic techniques: woodcut and lithography.  
Prereq: FA 210 Life Drawing. Art majors only.

**FA 306 Printmaking.** Three sem hours  
Advanced graphic techniques with emphasis on development of individual style through experimentation; etching and silk screen.  
Prereq: FA 305 Printmaking. Art majors only.

**FA 307 Ceramics.** Three sem hours  
Basic ceramics, including wheel throwing and handbuilding techniques, compounding earthenware and stoneware clay bodies, formulating glazes, firing electric and gas kilns.  
Prereq: FA 231 Three-Dimensional Design or permission of the department.

**FA 308 Ceramics.** Three sem hours  
Advanced ceramic techniques, emphasis on personal expression, compounding of individual clay bodies and glazes, loading and firing of kilns.  
Prereq: FA 307 Ceramics. Art majors only.

**FA 310 Sculpture.** Three sem hours  
Exploratory experiences in volume and space; the use of clay, stone, wood, metal, etc.  
Prereq: FA 231 Three-Dimensional Design. Art majors only.

**FA 311 Sculpture.** Three sem hours  
Continuing experiences in volume and space; development of further skills with sculpture materials and concepts.  
Prereq: FA 310 Sculpture. Art majors only.

**FA 313 Painting.** Three sem hours  
Painting problems; development of technique and concepts through experimentation with painting media.  
Prereq: FA 122 Two-Dimensional Design and FA 124 Drawing II. Art Majors only.

**FA 314 Painting - Watercolor.** Three sem hours  
Intensive exploration of watercolor techniques with emphasis on developing individuality and self-expression related to the medium.  
Prereq: FA 122 Two-Dimensional Design and FA 124 Drawing II. Art Majors only.

**FA 315 TV Graphics.** Three sem hours  
Preparing art specifically for television with grey scale and color work. Experimentation with styles and projects for both educational and commercial television. Art Majors only.

**FA 316 Life Drawing.** Three sem hours  
Advanced study problems; the human form as composition and design; varied media.  
Prereq: FA 210 Life Drawing. Art majors only.

**FA 320 Jewelry.** Three sem hours  
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 Three-Dimensional Design or permission of the department.

**FA 321 Jewelry.** Three sem hours  
Processes and techniques applied toward a professional development in jewelry design. Advanced processes: casting, setting of precious stones.  
Prereq: FA 320 Jewelry or equivalent.

**FA 323 Intermediate Photographic Imagery.** Three sem hours  
Advanced black and white techniques and alternative processes are demonstrated. Development of personal vision is realized through individual projects and discussion. Emphasis is placed on developing the abilities to intelligently contemplate and discuss photographic imagery.  
Prereq: Art major and FA 304 Beginning Photographic Imagery or permission.

**FA 324 Design and Development of Public Works of Art.** Three sem hours  
An experimental studio course in which students and instructors will design, plan and execute urban environmental murals, sculpture, parks and malls.  
Prereq: Permission of the department.

**FA 330 Multi-Media Workshop.** Three sem hours  
Investigations and experiments in direct use of industrial materials and kinetic media. Emphasis on media that have little art history.  
Prereq: FA 231 Three-Dimensional Design. Art majors only.

**FA 331 Multi-Media Workshop.** Three sem hours  
Investigations and experiments in direct use of industrial materials and kinetic media. Emphasis on media that have little art history.  
Prereq: FA 330 Multi-Media Workshop. Art majors only.

**FA 355 Textiles.** Three sem hours  
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 Textiles.

**FA 356 Textiles.** Three sem hours  
An intermediate textiles class dealing with concepts and design as they relate to basic fabric processes of surface decoration and manipulation.  
Prereq: FA 235 Textiles.

• **FA 377, 378, 379 Special Topics - Studio Art** One, two, three sem hours  
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.  
Prereq: See the department.

**FA 404 Lettering.** Three sem hours  
A survey of basic letter forms; problems include letter and type indication of rough comprehensive layout as well as finished lettering for reproduction purposes. Lettering and type are used as they apply to labels, packaging, magazine and newspaper advertising.  
Prereq: FA 301 Graphic Design.

- FA 405 Printmaking.** **Three sem hours**  
An advanced laboratory course primarily designed for art majors specializing in graphics. Individual assignments from the instructor in creative use of the more fundamental techniques learned in previous courses.  
*Prereq: FA 306 Printmaking.*
- FA 406 Printmaking.** **Three sem hours**  
An advanced laboratory course for art majors taking their sequence in graphics. Projects will include lithography, etching and aquatint processes plus individual assignments from the instructor in terms of the student's specific needs.  
*Prereq: FA 405 Printmaking.*
- FA 407 Ceramics.** **Three sem hours**  
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 Ceramics.*
- FA 408 Ceramics.** **Three sem hours**  
Summation of the undergraduate ceramics program; emphasis on individual style, production techniques, studio management, exhibition programs.  
*Prereq: FA 407 Ceramics.*
- FA 409 Advanced Photographic Imagery.** **Three sem hours**  
The contextual development of personal vision is emphasized through discussion of the student's work in relationship to established photographer's work.  
*Prereq: FA 323 Intermediate Photographic Imagery.*
- FA 410 Metal Casting Techniques.** **Three sem hours**  
This course will offer a thorough grounding in all aspects of the lost wax casting process as it pertains to sculpture along with basic information on other casting processes (sand casting, shell casting, full mold casting). In addition, information will be given on the construction of an inexpensive foundry so that interested students may continue casting after leaving the program.  
*Prereq: FA 310 Sculpture or permission of the department.*
- FA 411 Sculpture.** **Three sem hours**  
Advanced sculpture problems, including steel and openform construction; intensive study of contemporary methods and techniques of sculpture.  
*Prereq: FA 311 Sculpture or permission of the department.*
- FA 412 Sculpture.** **Three sem hours**  
Advanced sculpture problems; development of individual style in three-dimensional form.  
*Prereq: FA 411 Sculpture.*
- FA 413 Painting.** **Three sem hours**  
Further development of painting skills and aesthetic understanding of the two-dimensional surface complex. Emphasis on development of individual style.  
*Prereq: FA 313 Painting.*
- FA 414 Painting – Watercolor.** **Three sem hours**  
Further development of painting skills and aesthetic understanding of the two-dimensional surface complex. Emphasis on development of individual style.  
*Prereq: FA 314 Painting.*
- FA 418 Portraiture.** **Three sem hours**  
A course in the analytical drawing and painting of the volume and structure of the human form with emphasis on those specifics of detail and gesture necessary to illusionistically represent a person.  
*Prereq: FA 210 Life Drawing.*
- FA 419 Life Drawing.** **Three sem hours**  
The study of the human form as part of the development of a personal style in art.  
*Prereq: FA 316 Life Drawing.*
- FA 423 Painting – Watercolor.** **Three sem hours**  
Further development of individual style in watercolor.  
*Prereq: FA 414 Painting – Watercolor.*
- FA 424 Painting – Watercolor.** **Three sem hours**  
Further development of individual style in watercolor.  
*Prereq: FA 423 Painting – Watercolor.*
- FA 430 Multi-Media Workshop.** **Three sem hours**  
Advanced investigation and experiments in direct use of industrial materials and kinetic media. Emphasis on media that have little art history.  
*Prereq: FA 331 Multi-Media Workshop.*
- FA 431 Multi-Media Workshop.** **Three sem hours**  
Advanced investigation and experiments in direct use of industrial materials and kinetic media. Emphasis on media that have little art history.  
*Prereq: FA 430 Multi-Media Workshop.*
- FA 432 Drawing III.** **Three sem hours**  
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 Life Drawing.*
- FA 433 Color Theory.** **Three sem hours**  
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 Painting.*
- FA 439 Life Drawing.** **Three sem hours**  
The study of the human form as part of the development of a personal style in art.  
*Prereq: FA 419 Life Drawing.*
- FA 441 Studies in Clay and Glazes.** **Three sem hours**  
This course will attempt an investigation into the aspects of low temperature (earthenware, lusters, china paints, raku, lead, and borax and fritted glazes and slips), middle range temperatures in gas and electric kilns, porcelains and stonewares at cone 8 and cone 10.  
*Prereq: FA 407 Ceramics or above.*
- FA 442 Jewelry.** **Three sem hours**  
Advanced problems: raising metal into hollow forms, cutting and polishing of gem stones, gem identification and advanced metal joining and forming processes.  
*Prereq: FA 321 Jewelry.*
- FA 443 Jewelry.** **Three sem hours**  
Individual advanced problems in jewelry and metalworking.  
*Prereq: FA 442 Jewelry.*
- FA 455 Textiles.** **Three sem hours**  
Advanced problems in fiber structure and fabric processes. Emphasis on innovative development of images. Art majors only.  
*Prereq: FA 355 Textiles or FA 356 Textiles.*

• FA 477, 478, 479 Special Topics – Studio Art.

One, two, three semester hours

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.

Prereq: See the department.

FA 480, 481 Painting.

Three sem hours each

Further development of individual painting style.

Prereq: FA 413 Painting.

FA 497, 498, 499 Directed Studio Problems.

One, two, three sem hours

For advanced study on individual basis in areas in which the department does not have regular course work. Normally such work is restricted to proficient students in the senior year under the general conditions prescribed for honors courses.

Prereq: Permission of the department.

## Art History

FA 107 Art History Survey I.

Three sem hours

A survey of the development of the visual arts from cave art to the early Renaissance.

FA 108 Art History Survey II.

Three sem hours

A continuation of Art History Survey I from the Renaissance through modern times.

FA 215 History of 19th Century Art.

Three sem hours

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 Art History Survey I, FA 108 Art History Survey II.

FA 216 History of Contemporary Art I.

Three sem hours

A survey of the visual arts of the 20th Century, from Post-Impressionism through the latest contemporary developments.

Prereq: FA 215 History of 19th Century Art or permission of the department.

FA 222 African and Afro-American Art.

Three sem hours

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

FA 335 American Painting and Sculpture from the Colonial Period to World War II.

Three sem hours

The course studies the development of serious art in America, including the influences of European models and evolution of native American characteristics. Both individual artists, from the pioneers to Thomas Hart Benton, and important movements and schools will be discussed. Field trips may be required.

Prereq: FA 107 Art History Survey I and FA 108 Art History Survey II or permission of instructor.

FA 340 History of Classical Art.

Three sem hours

A study of the Art and Architecture of the classical civilization of Greek and Rome.

Prereq: FA 107 Art History Survey I or permission of instructor.

FA 341 History of Renaissance Art.

Three sem hours

A history of art from the Proto-Renaissance (about 1250 A.D.) through the period of mannerism (1600).

Prereq: FA 107 Art History Survey I or FA 108 Art History Survey II.

• FA 377, 378, 379 Special Topics – Art History.

One, two, three sem hours

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.

Prereq: See the department.

FA 421 History of Oriental Art.

Three sem hours

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.

Three sem hours

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 Art History Survey or FA 421 History of Oriental Art or permission.

FA 426 Medieval Art History.

Three sem hours

The development of medieval art from the Early Christian through the Gothic periods.

Prereq: FA 107 Art History Survey I or FA 108 Art History Survey II or permission of the department.

FA 427 Baroque Art.

Three sem hours

Principal developments in Italian and Northern art of the seventeenth century. Emphasis on major themes and aesthetic problems.

Prereq: FA 107 Art History Survey I or FA 108 Art History Survey II or permission of the department.

FA 428 Seminar: Modern Art.

Two sem hours

Readings, reports and group discussions of painting and sculpture from 1900 to the present. Course focus will remain flexible at the discretion of the department.

Prereq: FA 216 History of Contemporary Art I.

FA 429 History of American Architecture.

Three sem hours

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 Art History Survey I, FA 108 Art History Survey II or permission of the department.

FA 436 Women in Art.

Three sem hours

(Formerly FA 334)

Primarily 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 Art History Survey II or permission of instructor.

FA 440 History of Contemporary Art II.

Three sem hours

A continuation of 216 History of Contemporary Art I, from 1940 to the present with an intensive concentration on recent developments in art.

Prereq: FA 216 History of Contemporary Art I.

• FA 477, 478, 479 Special Topics – Art History.

One, two, three sem hours

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once provided different topics are studied.

Prereq: See the department.

## ART

Curriculum for the  
Bachelor of Fine Arts DegreeAdvising Coordinator, **David Tammany**  
(487-1268)

This program, designed for students who plan to enter occupations in which a substantial background in art is required, calls for a concentration of 54 semester hours in art.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other specified Group V courses and credit hours indicated below.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	<b>Semester Hours</b>
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
Group II Science and Mathematics .....	10-11
(No more than two courses in one department.)	
One laboratory science course.	
A second laboratory science course or a course in mathematics.	
One elective course in Group II.	
Group III Social Sciences .....	9-12
One course in American government from: PLS 112 American Government or PLS 202 State and Local Government .....	3
One course in history.	
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
Humanities .....	9
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music, or dramatic arts (Group V courses below automatically meet this requirement.)	
Group V Fine Arts .....	54
FA 107 Art Survey I .....	3
FA 108 Art 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 Contemporary Art I .....	3
FA 231 Three Dimensional Design .....	3

Select a sequence of four courses in a major area .....	12
Select three courses from the areas outside the above major area. These may be in sequence or selected individually .....	9
Electives .....	6
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
*Free electives (no more than six hours in art) .....	32-27
Total .....	124

Students completing the above 54 hour concentration on this curriculum will have satisfied all major and minor requirements for graduation.

Curriculum for Teachers of Art  
Bachelor of Art Education Degree\*\*Elementary or Secondary  
Provisional CertificateAdvising Coordinator, **David Tammany**  
(487-1268)  
Advisor, **Charles Fensch**  
(487-0258)

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 00. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses in Groups IV and V specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	<b>Semester Hours</b>
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	

\*Note carefully that no more than 60 semester hours in Group V art courses may be applied to the minimum of 124 hours required for the bachelor's degree.

\*\*If elementary provisional certificate is desired, consult with the director of Academic Records and Certification regarding special requirements. Include MTH 101 Functional Mathematics in Group II courses.

Group II Science and Mathematics ..... 10-12  
 (No more than two courses in one department)  
 One laboratory science course.  
 A second laboratory science course or a course in mathematics.  
 PSY 101 General Psychology.

Group III Social Sciences ..... 9-12  
 One course in American government selected from:  
 PLS 112 American Government or PLS 202 State and Local Government ..... 3  
 One course in history.  
 A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).

Humanities ..... 9  
 Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.  
 One course in philosophy or religion.  
 One course in art, music or dramatic arts (automatically completed in Group V courses below).

Group IV Education ..... 20  
 EDP 302 Educational Psychology ..... 3  
 CUR 303 Principles of Teaching ..... 3  
 CUR 418 Seminar in Education ..... 2  
 FA 416, 417 Teaching of Art ..... 4  
 EDU 492 or 495, 496 Student Teaching ..... 8

Group V Fine Arts ..... 54  
 FA 107 Art Survey I ..... 3  
 FA 108 Art 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 Contemporary Art I ..... 3  
 FA 231 Three Dimensional Design ..... 3  
 FA 235 Textiles ..... 3  
 FA 301 Graphic Design ..... 3  
 FA 305 Printmaking ..... 3  
 FA 307 Ceramics ..... 3  
 FA 310 Sculpture ..... 3  
 FA 313 Painting ..... 3  
 FA 314 Painting - Watercolor ..... 3  
 FA 320 Jewelry ..... 3  
 Electives ..... 3

Group VII Physical Education and Health ..... 2  
 Physical education activity courses ..... 2  
 Note: Two semester hours of military science may be applied towards this requirement.

Free electives ..... 12-4

Total ..... 124

Students completing the above curriculum will have satisfied all major and minor requirements for graduation.  
 A maximum of 60 semester hours in Group V fine arts courses is allowed

ART

Advising Coordinator, **David Tammany**  
 (487-1268)

Students may elect the following 30 hour major, but one of the preceding 54 hour majors is preferred.

Major (30 semester hours)

	Semester Hours
Required courses	21
FA 107 Art History Survey I	3
FA 108 Art History Survey II	3
FA 122 Two Dimensional Design	3
FA 123 Drawing I	3
FA 124 Drawing II	3
FA 231 Three Dimensional Design	3
FA 305 Printmaking or	
FA 310 Sculpture or	
FA 313 Painting	3
Elect six hours from the following:	6
FA 210 Life Drawing	3
FA 235 Textiles	3
FA 306 Printmaking	3
FA 311 Sculpture	3
FA 413 Painting	3
FA 419 Life Drawing	3
Elect three hours from the following:	3
FA 215 History of 19th Century Art	3
FA 216 History of Contemporary Art I	3
FA 301 Graphic Design	3
FA 307 Ceramics	3
FA 314 Painting - Watercolor	3
FA 320 Jewelry	3

Minor (20-24 semester hours)

An additional four hours beyond the minimum 20 hours for graduation must be completed to meet North Central Association requirements (24) for teaching this minor at the junior-senior high level. Methods courses may be included in that 24 hour total.

	Semester Hours
Required courses	9
FA 123 Drawing I	3
FA 107 Art Survey I or FA 108 Art Survey II	3
FA 122 Two-Dimensional Design or FA 231 Three-Dimensional Design	3
Approved Electives	12

Art History Minor (20-21 semester hours)

Adviser Chairperson, **Sharon Harrison**  
 (487-1213)

An art history minor may be selected by any student at Eastern Michigan University. The minor must include:

	Semester Hours
•FA 107 Art Survey I	3
FA 108 Art Survey II	3
FA 215 History of 19th Century Art	3
FA 216 History of Contemporary Art I	3
FA 428 Seminar - Modern Art	2
Electives in Art History	6

Students with an art major who elect the art history minor must replace FA 107, 108, 215, 216 on the major with studio courses.



## COURSES

New courses are identified with a bullet •.

### Biology

## BIOLOGY

Department Head: Herbert H. Caswell, Jr.

Professors: Donald F.M. Brown, Herbert H. Caswell, Jr., William E. Fennel, Najati S. Ghosheh, Edith M. Hurst, Dennis C. Jackson, Bert M. Johnson, Stephen C.Y. Liu, Merlyn C. Minick, Lawrence P. Richards, Paul A. Volz, Dale C. Wallace, Shih-an Yu.

Associate Professors: Howard D. Booth, Frank L. Sinclair, Suzanne J. Stevens, Elizabeth L. Waffle, Glenn K. Walker.

Assistant Professors: Ned T. Barden, Edna E. Jackson, Patrick C. Kangas, Paul W. Milske, P. George Simone, William D. Sperling.

The Biology Department offers a major in biology, with concentrations in community college biology teaching, ecosystem biology (aquatic and terrestrial), general biology, microbiology, a professional concentration in microbiology, and physiology as described beginning on page 63; minors in biology, botany (page 65) and zoology (page 68) and supervises the interdisciplinary minor in conservation and resource use (page 66). It also offers a cooperative program in forestry in conjunction with the School of Natural Resources of The University of Michigan which leads to a degree from both institutions (page 66), and supervises the pre-professional program in forestry for students who intend to go on in forestry at another institution (page 67).

### Bio-Career Center

In an attempt to assist students and advisers, the Biology Department has organized and is presently supporting a Bio-Career Center. Located in Room 306, Mark Jefferson, the Center serves as a repository for a reference collection of Biology Career Information.

## GRADUATE STUDY

The department also offers a graduate program leading to a Master of Science in Biology. To meet the admission requirements for this program, the undergraduates must plan their bachelor's degree work to include at least 20 semester hours in biology (including at least 7 hours in botany and 7 hours in zoology), one year of college chemistry, and must achieve an academic record of B (3.0) or better, during their junior and senior years. For acceptable undergraduate courses to be taken for graduate credit please consult the Graduate Catalog and your adviser.

### Election of Graduate Courses by Seniors

(85 hours or more of undergraduate credit completed)

Seniors who have an overall grade point average of 2.50 or better may elect graduate courses numbered 500 through 596 if recommended by their advisers and approved by the Dean of the Graduate School. For details, consult the Graduate Catalog,

**BIO 105 Biology and the Human Species. Four sem hours**  
A study of the basic concepts of biology, with emphasis on the human, his 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. (Not open to students with credit in BOT 221 General Botany and ZOO 222 General Zoology or BIO 106 Orientation to Biology.) Note: Two of the four hours for BIO 105 may be substituted for BIO 106 on the major or minor if a grade of B or better is earned in BIO 105. The remaining two hours would count as free electives. Students starting in BIO 105 who earn less than a grade of B must take BIO 106, but may take it concurrently with either BOT 221 General Botany or ZOO 222 General Zoology.

**BIO 106 • Orientation to Biology. Two sem hours**  
For prospective biology majors. An overview of science as exemplified in biology. The common properties of living things and the variety of ways evolved to exploit these properties. Provides a framework for the specialized sub-sciences included in biology and for man's place in nature.  
Prerequisite: Year of high school biology. Prospective majors with no previous biology should begin with BIO 105 Biology and the Human Species.

**BIO 204 The Biology of Cancer. Two sem hours**  
A lecture course which introduces the types, characteristics, putative causes, and current treatments of cancer.  
Prereq: 1 year of high school biology or an introductory college level biology course.

**BIO 205 Field Biology. Four sem hours**  
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. The course is designed to give background material to the nonspecialist interested in outdoor life, to those interested in nature interpretation and to the elementary school teacher.  
Prereq: BIO 105 Biology and the Human Species or equivalent, or permission of the department. Not open to students having credit in BOT 221 General Botany or ZOO 222 General Zoology except by permission of the department.

**BIO 207 Elements of Ecology. Two sem hours**  
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 Biology and the Human Species or equivalent.

**BIO 224 Principles of Conservation. Four sem hours**  
Introduces the basic resources of water, soil, vegetation, animal life, land as space, land in its unaltered condition, minerals and human powers, and develops the principles by which they may be wisely utilized and conserved with major emphasis on the renewable resources. A course involving lecture, laboratory and field trips.

**BIO 232 Nature Interpretation. Three sem hours**  
Combines intensive field and museum work in natural history with practical training and experience in interpreting objects and settings to individuals and groups.  
Prereq: Previous field work in natural history and course in biology essential.

- **BIO 239 Biology of Aging.** Two sem hours  
The study of the aging process at the molecular, cellular, tissue, and systems level of organization. Theories of aging and evolution of the process will be considered.  
*Prereq: BIO 105 Biology and the Human Species, or BIO 106 Orientation to Biology, or equivalent.*

**BIO 277, 278, 279 Special Topics in Biology.** One, two, three sem hours  
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: BIO 106 Orientation to Biology, or BIO 105 Biology and the Human Species and Departmental Permission.*

**BIO 301 Genetics.** Three sem hours  
A lecture course emphasizing the basic principles of inheritance with their application to plants and animals, including man.  
*Prereq: BOT 221 General Botany or ZOO 222 General Zoology or equivalent.*

**BIO 302 Genetics Lab.** Two sem hours  
A laboratory course designed to accompany or follow BIO 301 Genetics in which the student will work with organisms which have proved to be most fruitful in extending our understanding of genetic principles, especially *Drosophila* and *Neurospora*. Practice in gathering and analyzing data from living populations will be provided. Highly recommended for majors. Others with interest in genetics should find it useful.  
*Prereq: BIO 301 Genetics previously or concurrently.*

- **BIO 307 Introduction to Hematology.** Three sem hours  
Hematology is the study of the formed elements of the blood, their precursors, and some of their products. The emphasis of the course is an introduction to the theory and principles of routine medical laboratory procedure and technique.  
*Prereq: Departmental Permission.*

- **BIO 314 Energy Analysis and Environmental Decision-Making.** Three sem hours  
An introductory course in techniques used in environmental decision-making, emphasizing the energy analysis approach involving both natural and technological energy flows; problem-sets and a paper will be required.  
*Prereq: BIO 105 Biology and the Human Species or BIO 106 Orientation to Biology; a year of high school algebra or MTH 104-Intermediate Algebra.*

**BIO 320 Introduction to Cell Physiology.** Four sem hours  
A lecture and laboratory course in introductory general physiology. The course is devoted to the study of basic physiological mechanisms or processes common to all living organisms. Basic processes at the cellular level are emphasized rather than the applications of such processes to a particular organism.  
*Prereq: BOT 221 General Botany, ZOO 222 General Zoology, CHM 131 General Chemistry I. Organic chemistry is recommended.*

**BIO 333 Principles of Immunology.** Three sem hours  
A lecture and demonstration course on the basic principles of immunobiology including antigen-antibody reactions; immunoglobulin production; cellular immunity; hypersensitivity.  
*Prereq: MIC 328 Introduction to Microbiology or MIC 329 General Microbiology.*

**BIO 334 Immunohematology/Urinalysis.** Three sem hours  
A lecture and laboratory course dealing with the principles of immunohematology and the theory and practice of urinalysis.  
*Prereq: ZOO 201/202 Anatomy and Physiology or ZOO 222 General Zoology and ZOO 326 Human Physiology; BIO 333 Principles of Immunology.*

- **BIO 335 Immunology and Serology Laboratory.** Two sem hours  
A laboratory course designed to accompany or follow BIO 333 Principles of Immunology and Serology. Theory and practice in serological techniques will be presented with emphasis on antigen-antibody reactions such as precipitation, agglutination, viral neutralization, and complement fixation.  
*Prereq: BIO 333 Principles of Immunology and Serology taken previously or concurrently.*

- **BIO 387 Cooperative Education in Biology.** Three sem hours  
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 alternated with full-time attendance at the University.  
*Prereq: BIO 320 Introduction to Cell Physiology and junior standing. Admittance to program by application only, offered on Credit/No Credit basis.*

**BIO 400 Principles of Biological Techniques.** One sem hour  
A lecture/demonstration course presenting the theory and techniques in the preservation of biological specimens for research, medical technology and educational uses, with emphasis on microscopic slide techniques.  
*Prereq: At least two previous courses in college biology.*

**BIO 401 Biological Techniques Laboratory.** Two sem hours  
A laboratory course that offers practice and theory in the preservation of biological specimens for research, medical technology and educational uses, with the emphasis on microscopic slide techniques.  
*Prereq: BOT 221 General Botany or ZOO 222 General Zoology, Pre or coreq: BIO 400 Principles of Biological Techniques.*

**BIO 403 Methods and Materials for Teaching Biology.** Two sem hours  
A lecture-laboratory course that gives the student the specific knowledge and training concerning the principles, classroom methods and the preparation of classroom materials used in the teaching of biology. (Group IV course.) Does not apply on major or minor.  
*Prereq: ZOO 222 General Zoology and BOT 221 General Botany, and departmental permission. Not open to students on academic probation.*

**BIO 405 Organic Evolution.** Two sem hours  
The process involved in the origin and evolution of life and the implication for biology and our current world view are stressed in this lecture course.  
*Prereq: BOT 221 General Botany, ZOO 222 General Zoology, BIO 301 Genetics. GEO 230 Historical Geology is desirable.*

- **BIO 407 Advanced Hematology.** Three sem hours  
An advanced course designed to study the theory and application of hematological test procedures. This also includes interpretation of results, problem-solving, and correlation of laboratory findings with disease states.  
*Prereq: BIO 307 Introduction to Hematology and BIO 333 Principles of Immunology or as co-requisites.*

**BIO 410 Limnology.****Three sem hours**

A lecture, laboratory and field course dealing with physicochemical and biological interrelationships in standing waters.

Prereq: BOT 221 General Botany, ZOO 222 General Zoology, BIO 420 General Ecology, and one taxonomic field course or permission of the department.

**BIO 412 Biogeography.****Two sem hours**

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 permission of the department.

**BIO 420 General Ecology.****Four sem hours**

A field and laboratory course introducing the concepts involved in the study of terrestrial and aquatic communities, their physical environment, and their integration into ecosystems. Emphasis will be on properties at the ecosystem, community, and population levels.

Prereq: BOT 221 General Botany, ZOO 222 General Zoology and one taxonomic field course or permission of the department.

**BIO 427 Introductory Molecular Genetics. Three sem hours**

This course is designed as a follow-up to introductory genetics and will concentrate on the molecular aspects of the subject. The properties of genetical material will be discussed at molecular level.

Prereq: BIO 301 Genetics.

**BIO 429 Cell Biology.****Three sem hours**

A lecture course covering the structure and function of the nuclear and cytoplasmic components of the cell.

Prereq: BOT 221 General Botany, ZOO 222 General Zoology and CHM 270 Organic Chemistry, and a course in Physiology as prerequisite or corequisite.

- BIO 433 Stream Ecology.**

**Three sem hours**

A field biology course which includes the study of physicochemical and biological aspects of stream ecosystems. Includes a study of laboratory and field methods.

Prereq: BIO 420 General Ecology, an aquatic taxonomic field course, or departmental permission.

- BIO 434 Advanced Immunohematology. Three sem hours**

The course studies the in-depth principles and procedures of the blood bank and relates them to problem situations in the laboratory.

Prereq: BIO 334 Immunohematology/Urinalysis.

- BIO 435 Wetland Ecosystems.**

**Three sem hours**

Advanced field ecology course in the theory and methods of study of wetland ecosystems.

Prereq: BIO 420 General Ecology, BOT 450 Aquatic Tracheophyta.

- BIO 436 Terrestrial Ecosystems.**

**Three sem hours**

Advanced field ecology course in the theory and methods of study of the structure and dynamics of terrestrial ecosystems.

Prereq: BIO 420 General Ecology, BOT 354 Trees and Shrubs or BOT 302 Systematic Botany.

- BIO 461 Oncology.**

**Three sem hours**

A lecture course on physico-chemico-biological agents and factors on 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 General Microbiology or equivalent; organic chemistry (lecture & lab.).

**BIO 477, 478, 479 Special Topics in Biology.****One, two, three sem hours**

An examination of advanced topics in biology not covered in other department offerings.

Prereq: See the department.

**BIO 480 Radiation Biology.****Three sem hours**

The molecular, cellular, organismal, supra-organismal effects of corpuscular and electromagnetic radiation. Topics will cover the basic mechanisms of biological responses of viruses, microbes, plants and animals to radiation. A lecture course.

Prereq: Microbial, Plant or Animal Physiology, one year physics, one year chemistry. Genetics is desirable.

- BIO 487 Cooperative Education in Biology.**

**Three sem hours**

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 alternated with full-time attendance at the University.

Prereq: BIO 387 Cooperative Education in Biology. Admittance to program by application only. Offered on Credit/No Credit basis.

- BIO 488 Honors Practicum in Environmental Biology.**

**Two sem hours**

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 Environ. Biology Program Committee; prior application required.

**BIO 489 Practicum in Biology.****Three sem hours**

Provision of practical experience in a particular 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: Permission of the adviser and the department.

**BIO 497, 498, 499 Special Problems in Biology.****One, two, three sem hours**

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.

## Botany

**BOT 209 Ornamental Plants.****Two sem hours**

This is a general cultural course intended to acquaint the student with ornamental shrubs and trees, common weeds and house plants. Stress is placed on identification and methods of propagation. Much time is spent in the greenhouse and on short field trips.

**BOT 215 Economic Botany.****Three sem hours**

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.

**BOT 221 General Botany. Four sem hours**

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 audio-tutorial laboratory experience.

Prereq: *BIO 106 Orientation to Biology*. A student with exceptionally good high school biology preparation may request departmental permission to take *BIO 106* concurrently with either *BOT 221 General Botany* or *ZOO 222 General Zoology*. Cannot be taken concurrently with *ZOO 222 General Zoology* except by approval of the department.

**BOT 277, 278, 279 Special Topics in Botany. One, two and three sem hours**

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

Prereq: *BIO 105 Biology and the Human Species* or *BIO 106 Orientation to Biology* and departmental permission.

**BOT 302 Systematic Botany. Three sem hours**

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 near Ypsilanti. Counts as taxonomic field course.

Prereq: *BOT 221 General Botany*.

**BOT 304 Mycology. Three sem hours**

This lecture-laboratory course provides for the study of molds, rusts, mildews, edible and poisonous mushrooms and other fungi. Their life histories; their economic importance, methods of identification and preservation of specimens are topics studied.

Prereq: *BOT 221 General Botany*.

**BOT 312 Plant Anatomy. Three sem hours**

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 General Botany*.

**BOT 354 Trees and Shrubs. Three sem hours**

A taxonomic field course on identification of native trees and shrubs in winter and spring conditions. Counts as taxonomic field course.

Prereq: *BOT 221 General Botany* or *BIO 205 Field Biology*.

**BOT 387 Cooperative Education in Botany. Three sem hours**

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 alternated with full-time attendance at the University.

Prereq: *BIO 320 Introduction to Cell Physiology* and junior standing. Admittance to program by application only, offered on Credit/No Credit basis.

**BOT 430 Plant Morphology of Algae and Fungi. Four sem hours**

A lecture and laboratory course on comparative morphology of the algae (freshwater and marine) and the fungi. A study of the structure and life cycles of representative organisms with emphasis on the relationship of morphology to reproduction, environmental adjustment, classification and evolution.

Prereq: 15 hours of biology including *BOT 221 General Botany*.

**BOT 431 Plant Morphology of Mosses through the Vascular Plants. Four sem hours**

A lecture and laboratory course on comparative morphology of the mosses, liverworts, ferns and other vascular plants. A study of the structure and life cycles of representative forms with emphasis on the relationship of morphology to reproduction, environmental adjustment, classification and evolution, etc.

Prereq: 15 hours of biology, including *BOT 221 General Botany*. *BOT 430 Plant Morphology of Algae and Fungi* recommended but not essential.

**BOT 442 Plant Physiology. Three sem hours**

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 General Botany*, *CHM 270 Organic Chemistry* or equivalent, and *BIO 320 Intro. to Cell Physiology*.

**BOT 446 Medical Mycology. Four sem hours (formerly BOT 345)**

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 Introductory Microbiology* or *MIC 329 General Microbiology* or *BOT 304 Mycology*.

**BOT 450 Aquatic Tracheophyta. Three sem hours**

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 General Botany*.

**BOT 451 Freshwater Algae. Three sem hours**

A survey of the Freshwater Algal Divisions; their morphology, taxonomy, ecology and economic importances. Lectures will emphasize an evolutionary approach. Laboratory work will stress the identification of representative algal taxa. Class field collections are made. Counts as taxonomic field course.

Prereq: *BOT 221 General Botany* or equivalent.

**BOT 453 Taxonomy and Ecology of Diatoms. Three sem hours**

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.

Prereq: *BOT 451 Freshwater Algae* or department permission.

**BOT 477, 478, 479 Special Topics in Botany. One, two and three sem hours**

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: See the department.

**BOT 487 Cooperative Education in Botany. Three sem hours**

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 alternated with full-time attendance at the University.

Prereq: *BOT 387 Cooperative Education in Botany*. Admittance to program by application only. Offered on Credit/No Credit basis.

**BOT 497, 498, 499 Special Problems in Botany.****One, two and three sem hours**

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.

**Microbiology****MIC 328 Introductory Microbiology. Three sem hours**

Introduction to the biology of bacteria and other microbes, transmission of infectious diseases, principles of control of, and immunity to infectious diseases. A lecture/lab course.  
Prereq: *BIO 105 Biology and the Human Species and CHM 120 Fundamentals of Chemistry, or ZOO 201 Human Anatomy and Physiology I and ZOO 202 Human Anatomy and Physiology II, or permission of department. Does not apply on the curriculum in medical technology or on microbiology concentration in biology major, but will count as elective on general biology concentration or biology minor.*

**• MIC 329 General Microbiology. Five sem hours**

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.  
Prereq: *BOT 221 General Botany or ZOO 222 General Zoology or ZOO 326 Human Physiology and CHM 270 Organic Chemistry. A biochemistry course desirable. Not open to those who take MIC 328 Introductory Microbiology.*

**• MIC 340 Basic Virology. Three sem hours**

A basic lecture and laboratory course on physico-chemical 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 their control.  
Prereq: *MIC 329 General Microbiology and an organic chemistry course.*

**• MIC 387 Cooperative Education in Microbiology. Three sem hours**

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 alternated with full-time attendance at the University.  
Prereq: *MIC 329 General Microbiology and junior standing. Admittance to program by application only. Offered on Credit/No Credit basis.*

**MIC 432 Clinical Microbiology. Three sem hours (Formerly BOT 332)**

A lecture and laboratory course on qualitative and quantitative aspects of microbiology in relation to diseases as found in humans and especially in hospitalized patients. Methods of detection, isolation, enumeration, toxin production and identification as used in clinical laboratories.  
Prereq: *MIC 328 Introductory Microbiology or MIC 329 General Microbiology (or equivalent) and CHM 270 Organic Chemistry.*

**MIC 442 Microbial Ecology. Three sem hours**

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 General Botany or ZOO 222 General Zoology, and MIC 329 General Microbiology or equivalent.*

**MIC 444 Microbial Physiology. Three sem hours**

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 General Microbiology, CHM 270 Organic Chemistry; CHM 351 and CHM 352 Biochemistry desirable.*

**MIC 445 Food Microbiology. Three sem hours**

A lecture and laboratory course on 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 Introductory Microbiology or MIC 329 General Microbiology.*

**• MIC 452 Advanced Microbiology. Four sem hours**

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 General Microbiology, MIC 444 Microbial Physiology, and a biochemistry course.*

**• MIC 454 Molecular Biology of Bacteria and Viruses. Three sem hours**

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 General Microbiology or equivalent, BIO 301 Genetics, a course in physiology and a course in organic chemistry (lecture and laboratory). BIO 427 Introductory Molecular Genetics recommended.*

**• MIC 487 Cooperative Education in Microbiology. Three sem hours**

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 alternated with full-time attendance at the University.  
Prereq: *MIC 387 Cooperative Education in Microbiology. Admittance to program by application only. Offered on Credit/No Credit basis.*

**Zoology****ZOO 201 Human Anatomy and Physiology I. Three sem hours**

An intensive lecture and laboratory course investigating the anatomy and physiology of man 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.  
Prereq: *CHM 120 Fundamentals of Chemistry. Credit on Nursing and Biology Programs counts only if ZOO 201 and ZOO 202 are taken consecutively.*

**ZOO 202 Human Anatomy and Physiology II.****Three sem hours**

An intensive lecture and laboratory course investigating the anatomy and physiology of man 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 Fundamentals of Chemistry and ZOO 201 Human Anatomy and Physiology I.

**ZOO 222 General Zoology.****Four sem hours**

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, plus audio-tutorial laboratory experience.

Prereq: BIO 106 Orientation to Biology. A student with exceptionally good high school biology preparation may request departmental permission to take BIO 106 concurrently with either BOT 221 General Botany or ZOO 222 General Zoology. Cannot be taken concurrently with BOT 221 General Botany except by approval of the department.

**ZOO 223 Field Bird Study.****One sem hour**

Identification of birds and their songs and nesting habits, studied in laboratory and field.

**ZOO 277, 278, 279 Special Topics in Zoology.****One, two and three sem hours**

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

Prereq: See the department.

**ZOO 300 Natural History of Invertebrates.****Three sem hours**

A field course designed to give training 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 General Zoology.

**ZOO 306 Physical Anthropology.****Three sem hours**

A lecture-demonstration course that introduces the study of man from the organic or physical standpoint: man's place in the animal kingdom, the evolution of primates, the primate fossil record, the biology of selected living primates, pleistocene climate, racial diversity and distribution, and the role of culture in man's evolution.

Prereq: BIO 105 Biology and the Human Species or BIO 106 Orientation to Biology or equivalent.

**ZOO 310 Natural History of Vertebrates.****Three sem hours**

A survey of the vertebrates, emphasizing their adaptations and their natural history (i.e., those aspects of their ecology which cannot be readily studied by the experimental method either in the laboratory or in the wild). Laboratory work will stress the taxonomic classification, identification and distribution of local and other forms. Field work, sometimes conducted under adverse weather conditions and/or at night, will emphasize accurate observation and permanent recording of original data on local species. Counts as taxonomic field course.

Prereq: ZOO 222 General Zoology.

**ZOO 317 Anatomy for Occupational Therapy Students.****(formerly 200)****Five sem hours**

A lecture, demonstration and laboratory course on gross anatomy of the human body with emphasis on the extremities.

Prereq: BIO 105 Biology and the Human Species.

**ZOO 323 Animal Embryology.****Three sem hours**

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 General Zoology.

**ZOO 324 Comparative Anatomy of Vertebrates.****Four sem hours**

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.

Prereq: ZOO 222 General Zoology.

**ZOO 326 Human Physiology.****Three sem hours****(formerly 270)**

A study of the functioning of the human body. Lecture, laboratory and demonstration.

Prereq: BIO 105 Biology and the Human Species, ZOO 317 Anatomy for Occupational Therapy Students (or equivalent) previously or concurrently. Not open to biology majors, but can be taken on a biology minor in which case ZOO 222 General Zoology is prereq. Credit will not be given for both ZOO 326 Human Physiology and ZOO 427 Vertebrate Physiology.

**ZOO 366 Economic Zoology.****Two sem hours****(formerly 460)**

The species, varieties 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 387 Cooperative Education in Zoology.**

**Three sem hours**

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 alternated with full-time attendance at the University.

Prereq: BIO 320 Introduction to Cell Physiology, and junior status. Admittance to program by application only. Offered on Credit/No Credit basis.

**ZOO 404 Mammalian Histology.****Three sem hours**

A lecture/laboratory course dealing with the structure and properties of mammalian organs and their component tissues.

Prereq: ZOO 222 General Zoology.

**ZOO 417 Neuroanatomy.****Three sem hours****(formerly 305)**

A lecture/laboratory course concerned with the study of the human nervous system; lesions and resulting disabilities.

Prereq: ZOO 317 Anatomy for Occupational Therapy Students or ZOO 222 General Zoology and permission of the department.

**ZOO 421 Entomology.****Three sem hours**

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 General Zoology or permission of the department.

**ZOO 422 Ichthyology.****Three sem hours**

A study of some aspects of the biology, classification, distribution and evolution of fishes. Attention is given to the morphology, physiology, behavior, natural history and ecology of fishes through work in lecture, laboratory and in the field. Specific experience in the identification of the freshwater fishes of the Great Lakes region is provided in addition to a general survey of some marine fish families. Counts as a taxonomic field course.

Prereq: ZOO 222 General Zoology or equivalent.

**ZOO 425 Ornithology.****Three sem hours**

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 General Zoology or permission of the department.

**ZOO 427 Vertebrate Physiology.****Three sem hours**

(formerly 327)

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 General Zoology, BIO 320 Introduction to Cell Physiology, CHM 270 Organic Chemistry (minimum) or permission of department, Physics is desirable. Credit will not be given for both ZOO 326 Human Physiology and ZOO 427.

**ZOO 430 Invertebrate Zoology.****Four sem hours**

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 General Zoology.

**ZOO 437 Invertebrate Physiology.****Three sem hours**

A lecture/lab course to study the functional processes of both terrestrial and aquatic insects and other major invertebrate groups. The course will be built upon a general understanding of physiology to compare the ways different inverts have evolved solutions to common physiological problems. In the laboratory, several standard physiological research techniques will be used to demonstrate the lecture concepts. Some of these techniques will then be applied in a student-designed research exercise and report.

Prereq: ZOO 222 General Zoology, CHM 270 Organic Chemistry, BIO 320 Introduction to Cell Physiology. ZOO 430 Invertebrate Zoology is desirable but not required.

**ZOO 462 Parasitology.****Three sem hours**

A survey of animal parasites which affect man and his environment. Emphasis is on the zoological interrelationships. Lectures and laboratory.

Prereq: ZOO 222 General Zoology.

**• ZOO 474 Herpetology.****Three sem hours**

Some aspects of the biology of amphibians and reptiles: taxonomy, origins and evolution, anatomy, adaptations, behavior, ecology, zoogeography. Natural history of local hibernating and spring-breeding populations will be studied in the field, including at night and/or 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 General Zoology, and one of the following: BIO 420 General Ecology, ZOO 310 Natural History of Vertebrates, or ZOO 324 Comparative Anatomy of Vertebrates.

**ZOO 477, 478, 479 Special Topics in Zoology.****One, two and three sem hours**

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

Prereq: BIO 105 Biology and the Human Species or BIO 106 Orientation to Biology and departmental permission.

**ZOO 480 Protozoology.****Three sem hours**

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 General Zoology.

**ZOO 482 Aquatic Entomology.****Three sem hours**

The study of aquatic insect families and some common general ecology, including adaptations to the aquatic environment, life histories and taxonomy are stressed. A collection of the common aquatic insect families of the area is required. Counts as a taxonomic field course.

Prereq: ZOO 222 General Zoology. ZOO 421 Entomology is suggested.

**ZOO 485 Mammalogy.****Three sem hours**

Some aspects of the biology of mammals: origin and evolution, anatomy, classification, adaptations and zoogeography. Natural history and other aspects of their ecology are studied in the field. A collection of five or more museum study specimens of different species is required of each student. Counts as a taxonomic field course.

Prereq: ZOO 222 General Zoology and either ZOO 310 Natural History of Vertebrates or BIO 420 General Ecology or ZOO 324 Comparative Anatomy of Vertebrates.

**• ZOO 487 Cooperative Education in Zoology.****Three sem hours**

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 alternated with full-time attendance at the University.

Prereq: ZOO 387 Cooperative Education in Zoology. Admittance to program by application only. Offered on Credit/No Credit basis.

**ZOO 497, 498, 499 Special Problems in Zoology.****One, two and three sem hours**

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.

**Elementary Science**

(See required courses for elementary curricula on page 221)

**BIO 205 Field Biology.**

(See Biology)

**ESC 302 Elementary School Science.****Three sem hours**

Intended for those who are planning to teach in the elementary grades. An attempt is made to prepare 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 of conducting field trips will be demonstrated. Two one-hour lectures and one two-hour laboratory. (Group IV course.) Not open to students who have taken ESC 303 Science for the Elementary Teacher.

**ESC 303 Science for the Elementary Teacher.**

(formerly 203)

**Three sem hours**

Important biological concepts, especially relating to the interrelationships of organisms within their environment, will be stressed. Considerable emphasis will be placed on the investigative or "discovery" type approach. The methodology involved in the newer approaches to teaching science will be an integral part of the course. One hour of lecture and two hours weekly involving recitation, laboratory or field work. Concluding course in the Elementary Science sequence.

**ESC 377, 378, 379 Special Topics in Elementary Science.****One, two and three sem hours**

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: Permission of department.

**OFF-CAMPUS PROGRAMS****Tropical Biology**

Not offered regularly.

The department will offer the courses listed below only when appropriate arrangements can be made in a tropical area for laboratory facilities and living quarters for staff and students. All travel arrangements for these courses are made in advance by Eastern Michigan University. The courses will usually meet for a period of three weeks.

**BIO 428 Tropical Ecology.****Three sem hours**

A study of several important biotic communities of the tropics. Investigation is in both marine and terrestrial environments. Lectures plus much laboratory and field work are required.

Prereq: General botany, general zoology, some concept of ecological principles and some familiarity with use of taxonomic keys.

**BIO 497 Special Problems in Biology.****One sem hour****Cooperative Field Courses  
at Higgins Lake**

Some appropriate courses are taught at the Conservation Training School at Higgins Lake, under joint auspices of Eastern Michigan University, Central Michigan University, Western Michigan University, University of Michigan, and the Michigan Department of Conservation. They are normally scheduled as week-long courses during the summer. Only one course can be elected at a time, and each one carries one semester hour of credit.

All registrations for these courses are now handled by the Office of Continuing Education, Eastern Michigan University. Applications should be sent there directly. Applications should be sent as soon as possible and are accepted in the order received. Enrollment is limited, and students who have not applied in advance usually cannot be admitted. Students desiring to receive their credits from Eastern Michigan University and who indicate this fact in their applications will be enrolled on EMU forms, eliminating the need for transcripts.

Room and board are available. For further information consult the Office of Continuing Education, Eastern Michigan University.

**Field Courses at Fish Lake****KRESGE ENVIRONMENTAL EDUCATION CENTER****Coordinator, Frank L. Sinclair****(487-0332)**

Many field-oriented courses are taught at Eastern Michigan University's Kresge Environmental Education Center in Lapeer County, taking advantage of a tract of 240 rolling acres surrounding Fish Lake, and adjoining the 4,000 acre east parcel of the Lapeer State Game Area. The center is located in section 13 of Mayfield Township between Fish Lake Road and Five Lakes Road on the north side of Vernor Road.

There is normally a full resident program which will meet the needs of graduate students and in-service teachers during the six-week summer session. Emphasis will be on field courses and environmental education courses. These courses may also be suitable for seniors, and some will be available to other undergraduates.

Room and board fees are essentially the same as on campus. Registration and tuition payments are made during the regular spring-summer registration. Board and room contracts are available from the Center Office, 305 Mark Jefferson. Limited numbers of commuters can also be accommodated.

During fall and winter semesters, workshops can be held on Saturdays. Descriptions of these workshops can be obtained upon request from Eastern Michigan University, Office of Continuing Education. These materials will also include information about housing and food costs when these services are available.



# BIOLOGY

## Biology Major (30-36 semester hours)

The major in biology consists of 10 semester hours of required foundation courses plus 20 or 26 semester hours in an area of concentration. The concentrations requiring 20 semester hours are those in general biology, community college biology teaching, microbiology, and physiology. The concentration in ecosystem biology (aquatic and terrestrial) and the microbiology professional concentration require 26 semester hours in the Biology Department plus a specified minor.

Students should declare their intent to major in biology through either the Academic Services Center or the Biology Department as early in their college career as possible. Acceptance as a biology major in one of the six areas of concentration must be obtained by meeting with a biology faculty adviser. Students should contact a faculty adviser during their first semester at Eastern through the Biology Department office, the biology undergraduate coordinator, or the adviser chairman for the area of concentration in which the student is interested.

The curricular requirements for the major are explained below. The foundation courses required of all biology majors are listed first, followed by the specific course requirements for the 20 semester hour concentrations and then for the 26 semester hour concentrations.

	Semester Hours
Required Courses .....	10
BIO 106 Orientation to Biology .....	2
BOT 221 General Botany .....	4
ZOO 222 General Zoology .....	4

*Note: Prospective majors with no previous high school biology should start with BIO 105 Biology and the Human Species. Two of the four hours for BIO 105 may be substituted for BIO 106 on the major if a grade of B or better is earned in BIO 105. The remaining two hours would count as free electives. Students starting in BIO 105 who earn less than a B grade must take BIO 106, but may take it concurrently with either BOT 221 General Botany or ZOO 222 General Zoology. Transfer students entering with credit for BOT 221 or ZOO 222 should take BIO 106 concurrently with their first Biology Department course at EMU unless they also have transfer credit for BIO 105 with a grade of B or better.*

The following courses may not be counted on a biology major or minor: ESC 303 Science for the Elementary Teacher, ESC 302 Elementary School Science and BIO 403 Methods and Materials for Teaching Biology.

The minimum requirement in chemistry for all biology majors is CHM 131 General Chemistry I and CHM 270 Organic Chemistry, but some areas of concentration require more than this minimum. (See requirements below.)

### Areas of Concentration

Undergraduate Coordinator, **Paul W. Milske**  
(487-2388)

	Semester Hours
1. General Biology .....	20
Adviser Chairman: <b>Glenn K. Walker</b> (487-0132)	
BIO 301 Genetics .....	3
BIO 320 Introduction to Cell Physiology .....	4
One taxonomic field course (pre- or co-requisite for BIO 420) .....	3
BIO 420 General Ecology .....	4

Electives .....	6
(Any Group II biology, botany, microbiology, or zoology course, except BIO 205 Field Biology, BIO 207 Elements of Ecology, or ZOO 326 Human Physiology.)	

Within the 30-hour program, there must be at least seven hours each in botany (microbiology may be counted as botany for this requirement) and zoology. A botany, chemistry, or zoology minor is recommended.

A field experience at a biological station is considered essential.

Students applying for teaching certification at the secondary level must select the general biology area of concentration. They may not use the botany or zoology minor as the required teaching minor for certification.

Students desiring to specialize in the following areas: Pre-professional (pre-dentistry, pre-medicine, pre-osteopathic medicine, pre-podiatry, pre-veterinary medicine, and optometry); field biology or plant and animal taxonomy; cell biology; pre-forestry; laboratory or museum research; or teaching in a four-year college, should select the General Biology concentration as preparation for continuing in a professional or graduate school program.

Students who are uncertain about specializing in one field within biology may prefer the flexibility of this concentration area, which allows them to explore a broad spectrum of biology courses but does not preclude a later decision to specialize.

2. Community College Biology Teaching .....	20
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Chairman: **Paul W. Milske**  
Program Adviser: **Dale C. Wallace**  
(487-0212)

BIO 301 Genetics .....	3
BIO 302 Genetics Lab .....	2
BOT 312 Plant Anatomy or ZOO 324 Comparative Anatomy .....	3-4
BIO 320 Introduction to Cell Physiology .....	4
Taxonomic Field Course (Prerequisite for BIO 420 General Ecology) .....	3
BIO 420 General Ecology .....	4
Electives in biology, botany, or zoology .....	1-10

It is recommended that the student electing this area of concentration minor in botany, chemistry, or zoology.

This program leads to and terminates with a M.S. degree. (Consult the Graduate Catalog for further information.)

	Semester Hours
3. Microbiology .....	20

Adviser Chairman: **Ned T. Barden**  
(487-3039)

BIO 301 Genetics .....	3
MIC 329 General Microbiology .....	5
MIC 444 Microbial Physiology .....	3
Electives from the following: at least .....	9
MIC 340 Basic Virology .....	3
MIC 432 Clinical Microbiology .....	3
MIC 442 Microbial Ecology .....	3
MIC 445 Food Microbiology .....	3
MIC 452 Advanced Microbiology .....	4
MIC 454 Molecular Biology of Bacteria and Viruses .....	3
BIO 333 Principles of Immunology and Serology .....	3
BIO 335 Immunology and Serology Lab .....	2
BIO 427 Introduction to Molecular Genetics .....	3
BIO 429 Cell Biology .....	3

BIO 461 Oncology .....	3
BOT 304 Mycology .....	3
BOT 430 Plant Morphology, Algae and Fungi ..	4
BOT 446 Medical Mycology .....	4
ZOO 462 Parasitology .....	3
ZOO 480 Protozoology .....	3

Those electing this area of concentration are urged to minor in botany, chemistry, biochemistry, physics, or zoology. It is suitable for use by those in pre-professional curricula in medicine, osteopathic medicine, dentistry, veterinary science, or pharmacy. It may be used as a second major by those majoring in medical technology.

4. Physiology .....	<b>Semester Hours</b>	20
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Adviser Chairman: **P. George Simone**  
(487-1004)

BIO 320 Introduction to Cell Physiology .....	4
Two of the following .....	6
ZOO 427 Vertebrate Physiology .....	3
ZOO 437 Invertebrate Physiology .....	3
BOT 442 Plant Physiology .....	3
MIC 444 Microbial Physiology .....	3
Electives at least .....	10
Selected from:	
BIO 301 Genetics .....	3
BIO 400 Principles of Biological Techniques ...	1
BIO 401 Biological Techniques Laboratory .....	2
BIO 420 General Ecology .....	4
BIO 480 Radiation Biology .....	3
BOT 304 Mycology .....	3
BOT 312 Plant Anatomy .....	3
MIC 329 General Microbiology .....	5
ZOO 323 Animal Embryology .....	3
ZOO 324 Comparative Anatomy of Vertebrates .	4
ZOO 404 Mammalian Histology .....	3
ZOO 417 Neuroanatomy .....	3

Students electing this area of concentration are strongly advised to take minors in botany or zoology, and chemistry or biochemistry, and are urged to take CHM 451 Biochemistry and CHM 452 Biochemistry Laboratory. Elementary Physics is desirable.

This concentration prepares students for a variety of technical laboratory and clinical positions at the B.S. degree level. Students selecting the physiology concentration should seriously consider continuing their education through an M.S. degree in physiology which will greatly expand their career opportunities.

5. Ecosystem Biology (Aquatic and Terrestrial) ...	<b>Semester Hours</b>	26
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Adviser Chairman: **William E. Fennel**  
(487-0311)

BIO 301 Genetics .....	3
BIO 314 Energy Analysis and 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
BIO 410 Limnology or	
BIO 433 Stream Ecology .....	3
BIO 435 Wetland Ecosystems or	
BIO 436 Terrestrial Ecosystems .....	3
<b>Required Science Group Minor</b> .....	27
CHM 131 General Chemistry I .....	5
CHM 270-271 Organic Chemistry .....	5
PHY 221 Mechanics, Sound and Heat .....	4

PHY 222 Electricity and Light .....	4
GEO 160 Physical Geology .....	3
GEO 223 Weather and Climate .....	3
CSC 137 or 237 Computer Programming .....	3

Note: Mathematics prerequisites for CHM 131 and PHY 221 are not included in the group minor. No other minor is required.

It is suggested that a second minor be selected from among the following: Botany Minor (20 sem hr, page 65), Zoology Minor (20 sem hr, page 68), Chemistry Minor (22 sem hr, page 73), Coastal Environments Minor (21 sem hr, page 116), Conservation and Resource Use Minor (24 sem hr, page 66), Computer Science Minor (21 sem hr, page 136), or Land Use Analysis Minor (24 sem hr, page 118).

Courses which are most appropriate for use on the second minor in conjunction with the ecosystems biology concentration should be chosen in consultation with the student's faculty adviser and, in the case of the minors in botany, zoology, and conservation and resource use, must also be approved by the designated adviser for that minor.

Note: Substitution of courses on any minor requires the approval of both the adviser for the minor and the faculty adviser for the ecosystems biology concentration and, in some cases, of the Head of the department. Your adviser can tell you which approvals are needed.

Honors Courses involving research, optional and requiring that the students meet certain qualifications, are available with this concentration. See faculty adviser for details.

	<b>Semester Hours</b>	
Honors Courses		
BIO 488 Honors Practicum in Ecosystem Biology ..	2	
BIO 497, 498, 499 Special Problems in Ecosystem Biology .....	1-3	
BIO 387, 487 Cooperative Education in Ecosystem Biology .....	3-6	

Students who wish to prepare for graduate work in marine or aquatic biology will find it possible to choose courses emphasizing aquatic ecosystems and taxonomic field courses on aquatic organisms. Those interested in terrestrial environments will be able to choose courses with that emphasis.

Courses designated as Botanical Taxonomic Field Courses:

BOT 302 Systematic Botany .....	
BOT 354 Trees and Shrubs .....	
BOT 450 Aquatic Tracheophyta .....	
BOT 451 Freshwater Algae .....	
BOT 453 Taxonomy and Ecology of Diatoms .....	

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 .....	

6. Microbiology Professional Concentration ..... 26

Adviser Chairman: **Ned T. Barden**  
(487-3039)

BIO 301 Genetics .....	3
MIC 329 General Microbiology .....	5
BIO 427 Introductory Molecular Genetics .....	3
MIC 444 Microbial Physiology .....	3
MIC 452 Advanced Microbiology .....	4
Electives from the following: at least .....	8
MIC 340 Basic Virology .....	3
MIC 432 Clinical Microbiology .....	3
MIC 442 Microbial Ecology .....	3
MIC 445 Food Microbiology .....	3
MIC 454 Molecular Biology of Bacteria and Viruses .....	3
BIO 333 Principles of Immunology and Serology .....	3
BIO 335 Immunology and Serology Lab .....	2
BIO 429 Cell Biology .....	3
BIO 461 Oncology .....	3
BOT 304 Mycology .....	3
BOT 430 Plant Morphology, Algae and Fungi .....	4
BOT 446 Medical Mycology .....	4
BOT 451 Freshwater Algae .....	3
ZOO 462 Parasitology .....	3
ZOO 480 Protozoology .....	3

Required Biochemistry Minor .....	22
CHM 131 & 132 General Chemistry I and II .....	9
CHM 270 & 271 Organic Chemistry and Lab .....	5
CHM 281 Quantitative Analysis .....	4
CHM 351 Introduction to Biochemistry .....	3
CHM 352 Basic Biochemistry Analysis .....	1

Note: Students with a 3.0 GPA or better, or those planning on graduate work in microbiology, are encouraged to substitute CHM 371, 372, & 373 for CHM 270 & 271 and CHM 451, 452, & 453 for CHM 351 and 352. Pre-medical and pre-dental students should substitute CHM 371, 372, & 373 to satisfy most medical and dental school requirements for organic chemistry.

No additional minor is required, but a second minor in Medical Technology, (22 semester hours) will qualify the student with this concentration for a post-degree internship in Medical Technology (See page 254).

Mathematics Requirements .....	4
MTH 120 Calculus I .....	4

Note: Prerequisite of "B" average in high school mathematics through Trigonometry, or MTH 105 College Algebra (and MTH 107 Plane Trigonometry, if not taken in high school).

Physics Requirements .....	8
PHY 221 Mechanics, Sound and Heat .....	4
PHY 222 Electricity and Light .....	4

Students are encouraged to take at least three hours in research and practical experience through the following courses:

BOT 497, 498, 499 Special Problems in Microbiology .....	1-3
MIC 387, 487 Cooperative Education in Microbiology .....	3-6

The Microbiology Professional Concentration meets the educational requirements at the B.S. degree level, established by the American Academy of Microbiology, which will allow students completing the program, and after meeting the additional experience requirements set by the AAM, to make formal application for the examinations to become a Registered Microbiologist, RM(AAM).

It also provides the requisites for acceptance into graduate programs leading to qualification as a Specialist in Public Health and Medical Laboratory Microbiology, SM(AAM) and Specialist in Food, Dairy, and Sanitation Microbiology, SM(AAM), or to a doctoral degree in microbiology.

All biology majors are encouraged to participate in undergraduate research by using up to six hours of their electives in some combination of the Special Problems in Biology, Botany, or Zoology courses (1-3 sem hours each) and the Cooperative Education courses in Biology, Botany, Microbiology and Zoology (3 sem hours each).

#### Biology Minor (20-24 semester hours)

	Semester Hours
Required Courses .....	10
BIO 106 Orientation to Biology .....	2
BOT 221 General Botany .....	4
ZOO 222 General Zoology .....	4
Electives to total at least 20 semester hours .....	10
(Any Group II biology, botany, microbiology, or zoology course except ESC 303 Science for the Elementary Teacher and BIO 205 Field Biology).	

Note: Students with no previous biology in high school should start with BIO 105 Biology and The Human Species. Two of the four hours for BIO 105 may be substituted for BIO 106 on the minor if a grade of B or better is earned in BIO 105. The remaining two hours would count as free electives. Students starting in BIO 105 who earn less than a B grade must take BIO 106, but may take it concurrently with either BOT 221 General Botany or ZOO 222 General Zoology.

No more than four hours of electives on the minor may be taken in any combination of BIO, BOT, or ZOO 497, 498, 499 Special Problems Courses, and BIO, BOT, MIC, or ZOO 387, 487 Cooperative Education Courses.

Students minoring in biology are advised to take CHM 119 Fundamentals of Chemistry or CHM 131 General Chemistry I.

An additional four cognate hours of sciences must be completed to meet North Central Association requirements (24 sem. hr.) for teaching this minor at the junior-senior high level, and the methods course, BIO 403 Methods and Materials for teaching Biology (2 sem. hr.), may be included in that total.

## BOTANY

Adviser Chairman, **Herbert Caswell**  
(487-4242)

Biology Department

#### Botany Minor (20 semester hours)

Open only to those who are majoring in biology. Students electing this minor must consult with an appropriate adviser or guidance committee to obtain and file an approved schedule of electives chosen from courses in the botany and biology areas. No substitute courses will count on the minor unless specifically approved by the adviser or guidance committee. Contact department office for assignment to guidance committee or adviser.

Students in the curriculum for secondary teachers who elect this minor with a biology major must complete a second minor outside of the Biology Department to satisfy the current requirements for teacher certification.

## CONSERVATION AND RESOURCE USE

### Minor in Conservation and Resource Use (24 semester hours)

Adviser: **Frank Sinclair**  
(487-0332)  
Biology Department

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

	Semester Hours
Required Courses: .....	13
*GEO 108 Earth Science or GEO 160 Physical Geology .....	4
**BIO 207 Elements of Ecology .....	2
BIO 224 Principles of Conservation .....	4
***ECO 200 The American Economy .....	3
Electives sufficient to bring the total to 24 hours, selected from among the following courses ap- proved by the conservation adviser:	
BIO 215 Economic Botany .....	3
BIO 232 Nature Interpretation .....	3
CHM 115 Chemistry and Society .....	3
CHM 415 Environmental Chemistry .....	3
ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
ECO 375 Economic History of the U.S. ....	3
GEO 114 National Parks and Monuments ..	2
GEO 208 Natural Environmental Hazards .....	3
GEO 226 Oceans .....	2
GEO 229 Rocks of Michigan .....	2
GEO 235 Economic Geography .....	3
GEO 305 Aerial Photo Interpretation .....	3
GEO 310 Energy Awareness .....	3
GEO 315 Land Use Planning .....	3
GEO 320 Geography of U.S. and Canada .....	3
GEO 324 Weather and Climate .....	3
GEO 327 Soils Science .....	3
GEO 332 Urban Geography .....	3
GEO 361 Geography of Population .....	3
GEO 424 Climatology .....	2
GEO 448 The Subsurface Water Resource .....	3
GEO 495 Environmental Impact Assessment ...	3
SOC 306 Urban Community .....	3
SOC 334 Population .....	3

\*Students required to take GEO 108 Earth Science on a major or minor in the Geography and Geology Department will take an additional 4 hours of electives on this minor from the approved list.

\*\*The prerequisite for BIO 207 Elements of Ecology is BIO 105 Biology and the Human Species. Students planning to take this minor should elect it for basic studies credit in the freshman year. Biology majors minoring in conservation will take BIO 106 Orientation to Biology and BIO 420 General Ecology on the major and substitute additional approved electives on the minor.

\*\*\*Students who prefer to elect ECO 201-202 Principles of Economics may substitute ECO 201 for ECO 200 The American Economy and count ECO 202 as an elective on the minor. Students who are required to take ECO 201-202 Principles of Economics for other purposes on their curriculums, as in business administration, may not count it on this minor and must substitute an additional elective for ECO 200 The American Economy.

Students electing this minor must confer with the conservation adviser to obtain an approved schedule of electives. Substitutes on the approved program will count toward its completion only if approved by the conservation adviser. Appropriate field and summer courses may be substituted as electives as approved by the conservation adviser. Students are urged to meet the required course in government with PLS 202 State and Local Government.

## • FORESTRY, JOINT CURRICULUM

### Cooperative Program between Eastern Michigan University and The School of Natural Resources at The University of Michigan

Adviser Chairman, **Frank L. Sinclair**  
(487-0332)  
Biology Department

The joint curriculum in forestry under the cooperative program with the University of Michigan includes three years at Eastern, one summer at Camp Filibert Roth, and three semesters at the SNR. Students completing this curriculum receive from Eastern Michigan University a B.S. degree in biology, with the general biology concentration and a minor in conservation and resource use, after the first two semesters at the SNR. After the third semester at the SNR, they receive from the University of Michigan either a B.S. in Forestry (BSF) or a B.S. in Natural Resources.

#### First Year (at EMU)

	Semester Hours
First Semester .....	15
BIO 106 Orientation to Biology .....	2
ENG 121 Composition .....	3
CHM 131 General Chemistry I .....	5
SPH 121 Fundamentals of Speech .....	2
A History course .....	3
Physical Education activity .....	1
Second Semester .....	14
BOT 221 General Botany .....	4
PLS 112 or PLS 202 Government .....	3
MTH 120 Calculus (note pre-req.) .....	4
GEO 160 Physical Geology .....	3
Physical Education activity .....	1

#### Second Year (at EMU)

First Semester .....	16-17
ZOO 222 General Zoology .....	4
CHM 270 Organic Chemistry .....	4
ECO 201 Principles of Economics I .....	3
Literature course .....	3
Art, Drama, or Music .....	2-3
Physical Education activity (optional) .....	1
Second Semester .....	15
BOT 354 Trees and Shrubs .....	3
ECO 202 Principles of Economics II .....	3
SOC 105 or PSY 101 .....	3
Literature, second course .....	3
Elective .....	3
Physical Education activity (optional) .....	1

#### Third Year (at EMU)

First Semester .....	15-16
BIO 301 Genetics .....	3
BIO 224 Principles of Conservation .....	4
CSC 137 Computer Programming .....	3
Philosophy or Religion .....	3
Electives .....	2-3

Second Semester .....	15-16
BIO 320 Introduction to Cell Physiology .....	4
ENG 225 or SPH 224 .....	3
ZOO 310 Natural History of Vertebrates .....	3
Electives .....	5-6

### Curriculum at University of Michigan

Summer program at Camp Filibert Roth preferably taken between second and third years at EMU, but may be taken in summer after third year. Admission to Camp dependent on departmental recommendation from the Biology Department, EMU.

NR 330 Forest Biology .....	4
NR 338 Forest Survey .....	2
NR 339 Resource Sampling .....	4

### First Year (at U of M)

First Semester .....	14
NR 333 Soils .....	3
NR 435 Forest Ecology .....	4
NR 417 Forest Entomology .....	4
NR 450 Recreation Management .....	3
Second Semester .....	15
NR 231 Tree Growth .....	3
NR 241 Image Interpretation .....	2
NR 433 Forest Pathology .....	3
NR 435 Wood Structure .....	4
NR 471 Forest Economics .....	3

### Second Year (at U of M)

First Semester .....	14
NR 331 Silviculture .....	3
NR 365 N.R./Env. Policy .....	3
NR 452 Forest Management .....	4
NR 438 Applied Statistics .....	4

## FORESTRY, PRE-FORESTRY CURRICULUM

Adviser Chairman, **Frank L. Sinclair**  
(487-0332)

Adviser, **Max E. Adler**  
(487-0116)  
Biology Department

This curriculum meets the needs of those students who will later major in such diverse fields as forestry, conservation education, wildlife management, and fisheries biology at some school other than the School of Natural Resources of the University of Michigan. However, such students are reminded that forestry schools set their own requirements for admission and thus it is imperative that during their first year at EMU, exact requirements be obtained from current catalogs of the schools in which they are interested in completing their professional training.

In general, the three years at EMU of the joint curriculum described above, with appropriate choice of electives, may be expected to meet the requirements of many professional schools. Some flexibility in the sequence of courses is allowed to meet any other needs of individual students and the professional school they wish to attend.

## PRE-MEDICAL AND PRE-OSTEOPATHIC MEDICAL CURRICULUM

Adviser Chairman, **Edith M. Hurst**  
(487-1488)  
Biology Department

An important admission requirement for most medical schools, an admission test, is given in May and October in various centers throughout the nation. This should be taken during the junior year.

The medical and osteopathic schools establish their own requirements for admission. The course requirements are similar, but differ enough so that students should consult the catalogs of the various schools in which they are interested. The latest edition of *Medical School Admission Requirements*, available at the reference desk of the general library, should also be consulted. The introductory chapters of this book should be read by every prospective pre-medical student.

Although a few outstanding students may be admitted to medical school with only three years of college, most candidates earn the bachelor's degree prior to admission. If students plan to apply for admission to a medical school without completing the degree, they should plan their schedule to include the following general requirements:

	Semester Hours
ENG 121 English Composition .....	3
Electives in English Language or literature .....	3
BIO 106 Orientation to Biology .....	2
ZOO 222 General Zoology .....	4
BIO 301 Genetics .....	3
CHM 131, 132 General Chemistry .....	9
CHM 371, 372, 373 Organic Chemistry .....	8
PHY 221 Mechanics, Sound and Heat and PHY 222 Electricity and Light .....	8
Sociology and Psychology .....	6

While medical schools do not prescribe a pre-medical curriculum, they expect a thorough understanding of modern concepts in biology, chemistry and physics, since major advances in medicine are based on principles rooted in these disciplines. Most pre-medical students elect a major in chemistry and a minor in biology, or vice versa, or a biochemistry program, though this is not mandatory. Curriculum patterns detailing these major-minor sequences are available from the advisers or from the Academic Services Center. A less obvious requirement is mathematics. Although only a small number of medical schools demand a specific course sequence in mathematics, all value mathematical competence.

If students are not soon achieving at least a 2.75 grade point average, their chances of acceptance by a medical school are minimal and they should plan their program so that other professional or vocational goals are possible.

Because of the highly structured nature of the pre-medical program and the biology or chemistry majors, it is almost mandatory for the student to follow the first year as patterned below.

### First Year - Pre-Medicine

First Semester .....	Semester Hours
ENG 121 English Composition .....	3
CHM 131 General Chemistry I .....	5
*Mathematics .....	2-4
BIO 106 Orientation to Biology .....	2
Physical education activity or military science .....	1

## CHEMISTRY

Acting Department Head: O. Bertrand Ramsay

Professors: Charles T. Anderson, Stephen W. Brewer, Giles F. Carter, Ronald W. Collins, Edward L. Compere, Jr., Bruce Graves, Kenneth W. Hicks, John W. Moore, O. Bertrand Ramsay, Krishnaswamy Rengan, Stephen E. Schullery, Ronald M. Scott, John M. Sullivan, Stewart D. Work, Masanobu Yamauchi

Associate Professors: Elva Mae Nicholson, Donald B. Phillips, Ralph R. Powell, Bruce D. West, Jerry R. Williamson

Assistant Professors: Ellene T. Contis

The Chemistry Department offers the following programs of study: the Professional Curriculum in Chemistry and a major in chemistry (page 73); two biochemistry majors and a biochemistry minor (page 72); and a Metallurgical Chemistry Curriculum (page 73). The department also participates in the programs in general science (page 152), physical science (page 152), the Curriculum in Applied Science (page 151), Medical Technology (page 253) and Polymers and Coatings Technology (page 282).

### Honors Program in Chemistry

The Chemistry Department offers an honors program for capable and interested students. This program provides a more rewarding educational experience for these students by placing them together in special honors courses: 134 Honors General Chemistry II, 282 Honors Quantitative Analysis, 374 and 375 Honors Organic Chemistry and 376 Honors Organic Chemistry Laboratory. These smaller sections of qualified students permit a more informal classroom atmosphere with greater student-teacher interaction, coverage of more advanced topics and greater use of modern instrumentation than is normally possible. Students completing the honors sequence may bypass CHM 232 and take more advanced chemistry courses, including research, should they so desire.

Eligibility for the honors program is based on the student's interest and performance in 131 General Chemistry I. A student need not be a chemistry major to be eligible. Prospective honors students will be selected from 131 General Chemistry I classes by their instructors and the Chemistry Department Honors Committee prior to registration time for the winter term, and will be invited to register in 134 Honors General Chemistry II in the winter term. Alternatively, students may apply to the Honors Committee for permission to enroll in an honors course. Eligibility to enroll in the subsequent sections in the honors sequence is dependent on the student's continued interest and satisfactory course work performance. For more detailed information regarding the honors program, the student should contact a chemistry major advisor, a member of the Honors Committee, or the department head.

### Laboratory Attendance

Students not present for the first scheduled meeting time of a laboratory cannot be guaranteed continued registration in the laboratory.

<b>Second Semester</b> .....	15-16
CHM 132 General Chemistry II .....	4
Mathematics .....	3-4
ZOO 222 General Zoology .....	4
Physical education activity or military science ..	1
Elective .....	3

### Pre-Optometry and Pre-Podiatry

Students can complete course requirements in preparation for admission to optometry and podiatry programs at Eastern Michigan University. For information on these requirements, see Edith Hurst, adviser chairperson for pre-medical programs.

## ZOOLOGY

Adviser Chairman, **Herbert Caswell**  
(487-4242)  
Biology Department

### Zoology Minor (20 semester hours)

Open only to those who are majoring in biology. Students electing this minor must consult with an appropriate adviser or guidance committee to obtain and file an approved schedule of electives chosen from courses in the zoology and biology areas. No substitutes for the courses on this schedule will count on the minor unless specifically approved by the adviser or guidance committee.

Students in the curriculum for secondary teachers who elect this minor with a biology major must complete a second minor outside of the Biology Department to satisfy the current requirements for teacher certification.

Students with strong high school preparation and at least B quality mathematics, including two years of algebra, and trigonometry, may take MTH 120 Calculus I during the first semester.

Students with 1½-2 years of less than high quality algebra take MTH 105 Algebra.

Students with only one year of algebra take MTH 104, followed by MTH 105 Algebra.

Students without trigonometry take MTH 107 Trigonometry.

## GRADUATE STUDY

The Chemistry Department offers graduate work leading to the master's degree in chemistry. For descriptions of graduate courses and programs in the Chemistry Department, please consult the Graduate Catalog.

## COURSES

New courses are identified with a bullet •.

**CHM 101 Science for Elementary Teachers.****Three sem hours**

A course 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. Only simple equipment and easily obtained chemicals are used in the experiments. Lecture: one hour per week. Laboratory: four hours per week.

Prereq: PHY 100 Science for Elementary Teachers.

**CHM 105 Survey of Chemistry.****Five sem hours**

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 Fundamentals of Chemistry or CHM 120 Fundamentals of Organic and Biochemistry. Lecture: three hours per week. Laboratory: four hours per week.

**CHM 106 Chemistry in Art.****Three sem hours**

This course discusses the applications of chemistry to the understanding of the materials and processes used by the artist. Some of the topics covered include the chemistry of ceramics and glazes, textiles, dyes, photography and metals, as well as chemical safety. Though the course is directed primarily toward the practicing artist, the course would be appropriate to most humanities majors. CHM 107 may be taken concurrently to satisfy the Group II laboratory science requirement. Does not count on major or minor.

**• CHM 107 Chemistry in Art Laboratory. One sem hour**

The laboratory will examine some of the chemical properties and processes of materials used by the artist. The laboratory may be taken concurrently with CHM 106 to satisfy the Group II laboratory science requirement. Laboratory: two hours per week.

Co-req: CHM 106 Chemistry in Art.

**CHM 115 Chemistry and Society.****Three sem hours**

The course will examine the relevance of chemistry to the problem of man's relationship to his 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 Group II laboratory science requirement. Does not count on major or minor.

**CHM 116 Chemistry and Society Laboratory.****One sem hour**

This course consists of laboratory experiments based on environmental problems such as water and air pollution, drugs and pesticides. The laboratory may be taken concurrently with Chemistry 115 to satisfy the Group II laboratory science requirement. Laboratory: two hours per week.

Co-req: CHM 115 Chemistry and Society.

**CHM 118 Contemporary Materials.****Three sem hours**

An overview of materials used in everyday life with emphasis on materials in construction, the automobile and the household. An introduction to understanding why metals, plastics, wood, glass and rubber behave as they do.

**CHM 119 Fundamentals of Chemistry. Four sem hours**

A study of the basic principles of general chemistry, designed for students who are taking neither a major nor a minor in chemistry. The course emphasizes an understanding of our surroundings through application of these basic principles. This course may be used to satisfy the chemistry prerequisite for CHM 131 General Chemistry. Lecture: three hours per week. Laboratory: two hours per week.

**CHM 120 Fundamentals of Organic and Biochemistry.****Four sem hours**

A survey of organic chemistry and biochemistry: Completes the study of chemistry begun in Chemistry 119 and is a terminal course. Lecture: Three hours per week. Laboratory: Two hours per week.

Prereq: CHM 119 Fundamentals of Chemistry or one year of high school chemistry.

**CHM 131 General Chemistry I.****Five sem hours**

The first semester sequence covering the general principles of chemistry for science majors and others with an interest and background in science. Lecture: four hours per week. Laboratory: three hours per week.

Prereq: High school chemistry or CHM 119 Fundamentals of Chemistry; one and a half years of high school algebra.

**CHM 132 General Chemistry II.****Four sem hours**

A continuation of 131 General Chemistry I. The sequence 131 and 132 constitutes the customary year of general chemistry. Lecture: three hours per week. Laboratory three hours per week.

Prereq: CHM 131 General Chemistry I.

**CHM 134 Honors General Chemistry II. Four sem hours**

A continuation of 131 General Chemistry for students of superior ability. The sequence of 131 and 134 can constitute the customary year of general chemistry. Lecture: three hours per week. Laboratory: three hours per week.

Prereq: CHM 131 General Chemistry I and consent of Honors Committee.

**CHM 177 Special Topics in Chemistry. One sem hour**

An elementary-level course covering some specific chemical topic(s) not discussed in any regular, introductory chemistry course.

Prereq: Permission of the department.

**CHM 232 Inorganic Chemistry.****Two sem hours**

A course in descriptive inorganic chemistry in which the 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 132 General Chemistry II.

**CHM 241 Materials Science.****Three sem hours**

An understanding of why materials behave as they do. The relation of composition and structure to properties of materials: metals, plastics, ceramics, glass and composites. Lecture: three hours per week.

Prereq: CHM 131 General Chemistry, PHY 221 or PHY 223 Mechanics, Sound and Heat.

**CHM 242 Materials Science Laboratory. One sem hour**

A laboratory course, parallel to 241 Materials Science, including measurement of mechanical properties and investigation of crystal structures, microstructures, imperfections and transformations (solidification, recrystallization, solid phase changes and corrosion) of materials.

Prereq: CHM 131 General Chemistry I.

Coreq: CHM 241 Materials Science.

**CHM 270 Organic Chemistry.****Four sem hours**

A comprehensive one-semester survey course in organic chemistry intended primarily for chemistry minors. 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 371 and 372 Organic Chemistry. Lecture: four hours per week.

Prereq: CHM 131 General Chemistry I.

**CHM 271 Organic Chemistry Laboratory. One sem hour**  
Provides instruction in the basic manipulative techniques of experimental organic chemistry and experience with organic chemicals. Includes several synthesis reactions. To accompany or follow 270 Organic Chemistry. Laboratory: One three-hour period per week.

**CHM 277 Special Topics in Chemistry. One sem hour**  
An intermediate-level course covering some specific chemical topic(s) not discussed in any regular chemistry course at this level.  
*Prereq: One 100-level chemistry course and permission of the department.*

**CHM 281 Quantitative Analysis. Four sem hours**  
A lecture and laboratory course treating instrumental, gravimetric and volumetric analysis. Lecture: two hours per week. Laboratory: six hours per week.  
*Prereq: CHM 132 General Chemistry II, or CHM 134 Honors General Chemistry II.*

**CHM 282 Honors Quantitative Analysis. Four sem hours**  
A lecture and laboratory course treating instrumental, trace, separation, and characterization techniques. Lecture: two hours per week. Laboratory: six hours per week.  
*Prereq: CHM 132 General Chemistry II or CHM 134 Honors General Chemistry II and consent of Honors Committee.*

• **CHM 340 Introduction to Industrial Chemistry. Three sem hours**  
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.  
*Prereq: CHM 132 General Chemistry II, CHM 270 Organic Chemistry or equivalent.*

**CHM 341 Principles of Metallurgy. Three sem hours**  
A course covering the winning and refining, structure, diffusion, heat treatment, hardening and corrosion of metals.  
*Prereq: CHM 131 General Chemistry I.*

**CHM 342 Experimental Metallurgy. One sem hour**  
A laboratory course emphasizing metallography, testing of physical properties, treatment, finishing, and analysis of metals and alloys. Laboratory: three hours per week.  
*Prereq: CHM 242 Materials Science laboratory or CHM 341 Principles of Metallurgy. CHM 341 Principles of Metallurgy prereq. or coreq.*

• **CHM 345 Polymer Chemistry. Three sem hours**  
An emphasis on the organic chemistry involved in the preparation of synthetic high polymers. Topics include: chain-growth vinyl polymers, step-growth polymerization, copolymerization, cationic and anionic polymerization and complex co-ordination catalysts.  
*Prereq: CHM 132 General Chemistry II; CHM 270 Organic Chemistry or CHM 371, 372 Organic Chemistry I and II or equivalent.*

• **CHM 346 Polymer Chemistry Laboratory. One sem hour**  
Laboratory involves typical preparations of macromolecules, as well as the study of step-growth and chain-growth reaction mechanisms. Common polymers such as poly(styrene), poly(methylmethacrylate), poly(alkylene sulfides), polyesters, polyamides, epoxyresins will be synthesized. Course will also cover polymer evaluation and analysis, and degradation-depolymerization techniques.  
*Prereq: one semester of organic chemistry laboratory CHM 271 or CHM 373; CHM 345 or CHM 575. Polymer Chemistry; CHM 433 Inorganic-Organic Synthesis Laboratory recommended.*

**CHM 351 Introductory Biochemistry. Three sem hours**  
A lecture course primarily for medical technology and dietetics students dealing with the structure, function and metabolism of biologically significant compounds and with the chemistry of physiological processes. *No credit for both CHM 351 and CHM 451.* Lecture three hours per week.  
*Prereq: CHM 270 Organic Chemistry or equivalent.*

**CHM 352 Basic Biochemical Analysis. One sem hour**  
A laboratory class to accompany 351 Introductory Biochemistry. Emphasis is placed on the special analytical techniques employed by biochemists such as chromatography, electrophoresis, fluorimetry, spectrophotometry. Laboratory: four hours per week.  
*Prereq: CHM 271 Organic Chemistry Laboratory or equivalent, and CHM 281 Quantitative Analysis is also recommended. Coreq: CHM 351 Introductory Biochemistry.*

**CHM 361 Fundamentals of Physical Chemistry. Three sem hours**  
Foundations of physical chemistry. An introduction to some of the basic principles of physical chemistry, i.e., thermodynamics, kinetics and quantum theory. This course is applicable to the 30 hour chemistry major, the general biochemistry major, or the chemistry minor. Credit cannot be applied to the professional chemistry or biochemistry majors. Lecture: three hours per week.  
*Prereq: CHM 132 General Chemistry II, MTH 120 Calculus I and one year of college physics.*

**CHM 362 Physicochemical Measurements. One sem hour**  
A one-semester laboratory course whose emphasis is on measurements of physical constants. Experiments are chosen to illustrate physical measurements in the areas of thermodynamics, kinetics, and quantum mechanics. This course is applicable to the 30-hour chemistry major, the general biochemistry major, or the chemistry minor. Credit cannot be applied to the professional chemistry or biochemistry majors. Laboratory: four hours per week.  
*Prereq: CHM 281 Quantitative Analysis*  
*Coreq: CHM 361 Fundamentals of Physical Chemistry.*

**CHM 371 Organic Chemistry I. Three sem hours**  
A lecture course for students specializing in science and those preparing for dentistry or medicine. Lecture: three hours per week. *Not open to students who have credit for 270 Organic Chemistry.*  
*Prereq: CHM 131 General Chemistry I. CHM 132 General Chemistry II recommended.*

**CHM 372 Organic Chemistry II. Three sem hours**  
A continuation of 371 Organic Chemistry, and with it constituting the customary year of foundation work in organic chemistry. Lecture: three hours per week.  
*Prereq: CHM 371 Organic Chemistry.*

**CHM 373 Organic Chemistry Laboratory. Two sem hours**  
A laboratory course covering basic techniques involved in organic chemistry. This course must be taken concurrently with CHM 372 Organic Chemistry. Laboratory: six hours per week.

**CHM 374 Honors Organic Chemistry I. Three sem hours**  
Similar to 371 Organic Chemistry but at a more advanced level and limited to those admitted to the Chemistry Honors Program. Includes, in addition to basic organic concepts, reactions and structural theory, supplementary study in problem solving and special topics of interest to the instructor. Lecture: three hours per week.  
*Prereq: CHM 132 General Chemistry II or CHM 134 Honors General Chemistry II and admission to Honors Program or consent of Honors Committee.*



**CHM 375 Honors Organic Chemistry II. Three sem hours**  
 Similar to 372 Organic Chemistry and limited to those admitted to the Chemistry Honors Program and those who have received credit in Chemistry 374. Continuation of 374 and with it constituting the customary year of work in organic chemistry at a higher level than that offered in the 371-372 sequence. Must be accompanied by 376 Honors Organic Chemistry Laboratory. Lecture: three hours per week.  
*Prereq: CHM 374 Honors Organic Chemistry.*

**CHM 376 Honors Organic Chemistry Laboratory.**

**Two sem hours**  
 A laboratory course including the manipulative skills and techniques of organic chemistry and use of modern instrumentation. Includes, in addition to modern synthesis and reactions, introductory qualitative organic analysis. This course must be taken concurrently with 375 Honors Organic Chemistry: six hours per week.  
*Prereq: CHM 374 Honors Organic Chemistry; coreq: CHM 375 Honors Organic Chemistry. Open only to those admitted to the Chemistry Honors Program or by special permission of the department.*

**CHM 378 Special Topics in Chemistry. Two sem hours**

An upper-level course covering some specific chemical topic(s) not discussed in any regular chemistry course at this level.  
*Prereq: Permission of the department.*

**• CHM 381 Instrumentation for Chemical Technology.**

**Two sem hours**  
 A lecture and laboratory course which surveys various types of analytical instrumentation and their uses in chemical industry.  
*Prereq: CHM 281 Quantitative Analysis; CHM 270 Organic Chemistry and CHM 271 Organic Chemistry Laboratory or equivalent.*

**CHM 387 Cooperative Education in Chemistry.**

**Three sem hours**  
 Four or six months of full-time employment at an industrial firm specially chosen for imparting a practical educational experience in chemistry or technology. The program consists of two work experiences alternated with full-time attendance at the University.  
*Prereq: CHM 281 Quantitative Analysis, junior standing, admittance to the program by application only. Offered on a credit/no credit basis.*

**CHM 397 Undergraduate Research in Chemistry.**

**One sem hour**  
 An independent, original endeavor involving laboratory and/or library work, under the guidance of a chemistry faculty member. A final, written progress report is required at the end of the semester.  
*Prereq: Permission of the department.*

**CHM 410 Scientific Glassworking. One sem hour**

Weekly lecture-demonstrations cover basic methods of manipulation and properties of glass as related to simple construction and repair of common laboratory glassware. Weekly projects are submitted to the instructor for evaluation after completion. Laboratory: two hours per week.

**• CHM 411 Toxicology I. Two sem hours**

An introduction to the Principles and Methods of Toxicology. Some special classes of toxic response including carcinogenesis, teratogenesis, and behavioral effects are discussed; as are the effects of radiation.  
*Prereq: CHM 270 Organic Chemistry or CHM 371-2 Organic Chemistry I and II or equivalent.*

**• CHM 412 Toxicology II. Two sem hours**

A continuation of CHM 411. The metabolism of toxicants and their effect on specific organ systems is discussed. Specific classes of toxicants are surveyed. Legal aspects of toxicology are discussed.

*Prereq: CHM 411 Biochemistry recommended.*

**CHM 415 Environmental Chemistry. Three sem hours**

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.  
*Prereq: CHM 132 General Chemistry II. A course in organic chemistry and/or quantitative analysis is also recommended.*

**CHM 432 Advanced Inorganic Chemistry. Three sem hours**

An advanced level treatment of the newer inorganic chemical developments, with emphasis on theoretical advances in the interpretation of bonding and reactivity of inorganic compounds. Lecture: three hours per week.  
*Prereq: CHM 461 Physical Chemistry or permission of the department; CHM 232 Inorganic Chemistry is also recommended.*

**CHM 433 Inorganic-Organic Synthesis Laboratory.**

**Two sem hours**  
 A laboratory course covering advanced preparative and analytical techniques of inorganic and organic chemistry including extensive use of IR, NMR, uv-visible and other instruments. Laboratory: six hours per week.  
*Prereq: CHM 281 Quantitative Analysis and CHM 373 Organic Chemistry Laboratory.*

**CHM 451 Biochemistry I. Three sem hours**

A lecture course dealing with the chemistry of biologically important substances such as proteins, nucleic acids, carbohydrates and lipids. Enzyme chemistry is introduced. Lecture: three hours per week.  
*Prereq: CHM 270 Organic Chemistry or equivalent, and CHM 132 General Chemistry II.*

**CHM 452 Biochemistry II. Three sem hours**

(formerly CHM 453)  
 A lecture course continuing the survey of biochemistry begun in 451 Biochemistry and dealing with dynamic aspects of biochemistry, especially metabolism, biosynthesis and regulation. Lecture: three hours per week.  
*Prereq: CHM 451 Biochemistry.*

**CHM 453 Biochemistry Laboratory. Two sem hours**

(formerly CHM 452)  
 Provides laboratory experience in the isolation, purification and analysis of biochemically important compounds. Modern laboratory techniques are stressed. Laboratory: six hours per week.  
*Prereq: CHM 271 Organic Chemistry Laboratory or equivalent, and CHM 281 Quantitative Analysis, CHM 451 Biochemistry I. Coreq: CHM 452 Biochemistry II.*

**CHM 455 Clinical Biochemistry. Three sem hours**

A lecture and laboratory course to include theory, instrumentation and procedures used in clinical laboratories. Lecture: two hours per week. Laboratory: three hours per week.  
*Prereq: CHM 281 Quantitative Analysis and a laboratory course in biochemistry.*

**CHM 461 Physical Chemistry I. Three sem hours**

A course which considers the principles of thermodynamics, kinetics and atomic and molecular structure. Lecture: three hours per week.  
*Prereq: CHM 132 General Chemistry II, one year of college physics, and MTH 223 Multivariable Calculus.*

**CHM 462 Physical Chemistry II. Three sem hours**  
(formerly CHM 463)

A continuation of the work begun in 461 Physical Chemistry. Lecture: three hours per week.

Prereq: CHM 461 Physical Chemistry and MTH 325 Differential Equations and Vector Analysis.

**CHM 463 Physical Chemistry Laboratory. Two sem hours**  
(formerly CHM 462)

A course involving the determination of the physical properties of substances, rate studies and measurement of thermochemical and electrical properties. Laboratory: seven hours per week.

Prereq: CHM 281 Quantitative Analysis, CHM 461 Physical Chemistry.

**CHM 477, 478 Special Topics in Chemistry. One, two sem hours**

Advanced-level courses covering specific chemical topics not discussed in any regular chemistry courses at this level.

Prereq: Permission of the department.

**• CHM 480 Computer/Instrument Interfacing. Two sem hours**

A lecture and laboratory course which introduces the student to computers in the laboratory. The course deals with the techniques of interfacing the micro computer to various analytical instruments.

Prereq: CHM 281 Quantitative Analysis; CHM 381 Instrumentation for Chemical Technology or CHM 481 Instrumental Analysis or permission of department.

**CHM 481 Instrumental Analysis. Four sem hours**

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 Quantitative Analysis and CHM 461 Physical Chemistry.

**CHM 485 Radioisotope Techniques in Chemistry and Biology. Three sem hours**

The course will introduce students to principles and practices of radiation safety, measurement of radioactivity with various detectors and to laboratory techniques of handling radioactivity. Lecture: three hours per week.

Prereq: CHM 131 General Chemistry I and one science lab course above the introductory level, or permission of the department.

**CHM 487 Cooperative Education in Chemistry. Three sem hours**

Four or six months of full-time employment at an industrial firm specially chosen for imparting a practical educational experience in chemistry or technology. The program consists of two work experiences alternated with full-time attendance at the University.

Prereq: CHM 387 Cooperative Education in Chemistry, admittance to program by application only. Offered on a credit/no credit basis.

**CHM 491: History of Chemistry. Two sem hours**

A course concerned with the development of chemical concepts from the Greek natural science to the present. Lecture: two hours per week.

Prereq: Two years of college chemistry, including organic chemistry

**CHM 498, 499 Undergraduate Research in Chemistry. Two, three sem hours**

Independent, original endeavors involving extensive library and/or laboratory work, under the guidance of a chemistry faculty member. A final, written progress report is required at the end of the semester.

Prereq: Permission of the department.

**BIOCHEMISTRY**

(Non-Teaching)

Adviser Chairman, Charles Anderson  
(487-2039)

Administered by the Chemistry Department

**Biochemistry Majors**

Two majors are offered in biochemistry. The Professional Biochemistry Major provides adequate preparation for students anticipating graduate study and a research career in biochemistry. The General Biochemistry Major is designed for students with an interest in biochemistry but who require less extensive background than the Professional Major. Students on pre-medicine or pre-dentistry curriculums desiring a biochemistry major normally take the General Major unless their ultimate goal is medical biochemical research. A group minor of biology, mathematics, and physics courses is required with both majors and is included in the required courses listed. No other minor is needed to meet graduation requirements.

**Professional Biochemistry Major and Group Minor**  
(77 semester hours)

	Semester Hours
CHM 131-132 General Chemistry I and II .....	9
CHM 281 Quantitative Analysis .....	4
CHM 371-372-373 Organic Chemistry .....	8
CHM 451-452-453 Biochemistry .....	8
CHM 461-462-463 Physical Chemistry .....	8
Chemistry elective(s) from 411, 412, 433, 477, 478, 481, 485, 498, 499, 553, 555, 572, 573 ...	3
BOT 221 General Botany or ZOO 222 General Zoology .....	4
BIO 301 Genetics .....	3
Biology department elective(s) from courses numbered above 300 .....	3
MTH 120-121 Calculus I and II .....	8
MTH 122 Elementary Linear Algebra .....	2
MTH 223 Multivariable Calculus .....	4
MTH 325 Differential Equations and Vector Analysis .....	3
PHY 223 Mechanics, Sound, and Heat .....	5
PHY 224 Electricity and Light .....	5

**General Biochemistry Major and Group Minor**  
(54 semester hours)

	Semester Hours
CHM 131-132 General Chemistry I and II .....	9
*CHM 270-271 Organic Chemistry .....	5
CHM 281 Quantitative Analysis .....	4
CHM 361 Physical Chemistry I .....	3
CHM 362 Physicochemical Measurements .....	1
CHM 451-452-453 Biochemistry .....	8
BOT 221 General Botany or ZOO 222 General Zoology .....	4
BIO 301 Genetics .....	3
Biology department elective(s) from courses numbered above 300 .....	5
MTH 120 Calculus I .....	4
PHY 221 or 223 Mechanics, Sound, and Heat ..	4-5
PHY 222 or 224 Electricity and Light .....	4-5

\*Pre-medicine and pre-dentistry students should substitute CHM 371, 372, 373 to satisfy most medical and dental schools' requirements for organic chemistry.

**Biochemistry Minor** (22 semester hours)

	Semester Hours
CHM 131-132 General Chemistry I and II .....	9
CHM 270-271 Organic Chemistry .....	5
CHM 281 Quantitative Analysis .....	4
**CHM 351 Introduction to Biochemistry .....	3
**CHM 352 Basic Biochemistry Analysis .....	1

**CHEMISTRY**

Adviser Chairman, **Charles Anderson**  
(487-2039)

**Chemistry Major** (30 semester hours)

This major is designed for students who do not intend to become professional chemists or who do not desire an ACS-certified degree in chemistry. Among the students for whom this major is appropriate are those who: (1) desire a general cultural education with an emphasis on chemistry, or (2) are preparing for careers in health fields such as medicine or dentistry, or (3) are planning to teach chemistry in a secondary school, or (4) are interested in a career which combines a background in chemistry with training in another field such as business, patent law, technical writing, or industrial health and safety.

	Semester Hours
Required courses:	
CHM 131 General Chemistry I .....	5
CHM 132 General Chemistry II .....	4
CHM 281 Quantitative Analysis .....	4
CHM 371-372-373 Organic Chemistry .....	8
CHM 361 Fundamentals of Physical Chemistry .....	3
CHM 362 Physicochemical Measurements .....	1
Electives in chemistry from courses above 200 .....	5
Note: Prerequisites for the above courses include MTH 120 Calculus I, and two semesters of college Physics, a total of 12-14 semester hours.	

The methods class for those students who plan to teach chemistry at the junior-senior high level is PHY 325 Methods in Science Teaching, usually offered only in the fall semester. CHM 503 Modern Approaches to Teaching Chemistry may also be taken to satisfy this requirement.

**Chemistry Minor** (20-24 Hours)

Required courses:	
CHM 131 General Chemistry I .....	5
CHM 132 General Chemistry II .....	4
CHM 270-271 Organic Chemistry (or equivalent) .....	5
Electives from courses above 200 .....	6

An additional four cognate hours of sciences must be completed to meet North Central Association requirements (24) for teaching this minor at the junior-senior high level. The methods course may be included in that total.

\*\*The CHM 451, 452, 453 sequence may be substituted for CHM 351, 352 if a stronger background is desired.

**Metallurgical Chemistry Curriculum**

Adviser Chairman, **Giles C. Carter**  
(487-2039)

This curriculum provides the necessary background for industrial positions in chemical metallurgy or other areas of industrial chemistry involving a minimum of organic chemistry. Graduate study in chemistry or metallurgy would require additional course work. Below is a list of the required science, mathematics, and technology courses in a recommended sequence. Additional recommended courses are listed.

	Semester Hours
<b>First Year</b>	
First Semester	
MTH 131 General Chemistry .....	5
MTH 120 Calculus I .....	4
IT 123 Metal Processes .....	3
Second Semester	
CHM 132 General Chemistry II .....	4
MTH 122 Elementary Linear Algebra .....	2
IT 122 Technical Drawing .....	3
<b>Second Year</b>	
First Semester	
CHM 281 Quantitative Analysis .....	4
PHY 221 Mechanics, Sound, and Heat .....	4
Second Semester	
CHM 270 Organic Chemistry .....	4
CHM 271 Organic Chemistry Laboratory .....	1
PHY 222 Electricity and Light .....	4
CHM 232 Inorganic Chemistry .....	2
<b>Third Year</b>	
First Semester	
CSC 137 Introduction to Computer Programming .....	3
CHM 241 Materials Science .....	3
CHM 242 Materials Science Laboratory .....	1
CHM 361 Fundamentals of Physical Chemistry .....	3
CHM 362 Physicochemical Measurements .....	1
Second Semester	
CHM 341 Principles of Metallurgy .....	3
CHM 342 Experimental Metallurgy .....	1
<b>Fourth Year</b>	
First Semester	
CHM 381 Instrumentation for Chemical Technology .....	2
CHM 340 Industrial Chemistry .....	3
IT 215 Machine Tool Metalworking .....	3
Second Semester	
CHM 480 Computer/Instrument Interfacing .....	2
Recommended Courses:	
CHM 387 Cooperative Education in Chemistry .....	3
CHM 487 Cooperative Education in Chemistry .....	3
CHM 415 Environmental Chemistry .....	3
ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
ECO 310 Economic Statistics .....	3
MGT 382 Introduction to Management .....	3
MKT 360 Principles of Marketing .....	3
ACC 240 Principles of Accounting .....	3
ORI 265 Business Statistics .....	3
IT 203 Manufacturing Technology .....	3

IT 200 Industrial Electricity .....	3
IT 213 Occupational Safety and Health .....	3
IT 251 Materials Analysis and Testing .....	3
MTH 121 Calculus II .....	4
ENG 424 Technical Writing .....	3

## Pre-Dentistry Curriculum

Advisers: **John M. Sullivan** (487-2057),  
**Stewart D. Work** (487-2124),  
**Ralph R. Powell** (487-1423)  
 Chemistry Department

The pre-dentistry curriculum for most students is a normal B.S. degree curriculum designed to include those courses required for admission into dental school. For most dental schools, the admission requirements are fulfilled by taking 1 year of English including composition, 1 year of inorganic chemistry, 1 year of organic chemistry, 3 semesters of biology, including zoology and comparative anatomy, and 1 year of physics. All of the science courses must include laboratories. The exact requirements for a particular dental school can be found in the publication, *Admission Requirements of U.S. and Canadian Dental Schools*, which is available in each pre-dental adviser's office.

Students with exceptionally strong high school backgrounds in biology, chemistry, or mathematics may be permitted to by-pass what is normally the first course in these areas. Likewise, remedial courses are available for students with high school deficiencies (e.g., no chemistry, less than 2½ years of mathematics).

In order to integrate the above requirements into a normal B.S. degree curriculum, most students select either a biology major and chemistry minor or a chemistry major and biology minor. Other majors and minors are possible but the biology and chemistry selections have the advantage of building on the courses required for dental school. Once the student has made the selection of a major, an adviser for that major area should be consulted on a regular basis in addition to the pre-dental adviser.

Although it is possible to gain admission to dental schools without a bachelor's degree, only a small number of outstanding students have succeeded in doing this. About two-thirds of the students accepted by dental schools have completed four years of undergraduate work. The student should keep in mind that the acceptance rate for dental schools is not high (about one acceptance for every ten applicants) and that the mean grade point average (GPA) of students accepted is above B. Although the acceptance rate for EMU students has been significantly higher than one in ten, it is nevertheless recommended that alternative career plans should be part of every pre-dental student's program.

Virtually all dental schools require applicants to take the Dental Aptitude Test (DAT). This is usually taken early in the senior year. Application forms and other information concerning the DAT are available from all pre-dental advisers.

Applications to dental schools are generally made between August and December for the class beginning the following fall. A central agency, the American Association of Dental Schools Application Service (AADSAS), is utilized by virtually all dental schools. Application forms are available from advisers.

Following is a typical program designed to complete dental school requirements in three years. There is some flexibility, and students need not necessarily take the courses in this sequence. Spreading the courses over four years is also permissible but, owing to the danger of closed sections, it would seem prudent to complete the dental school requirements before the student's last semester.

Basic Studies requirements, a 30-hour major, and a 20-hour minor must be integrated into this program to meet B.S. degree requirements.

### First Year

	Semester Hours
First Semester .....	16
ENG 121 English Composition .....	3
CHM 131 General Chemistry I .....	5
BIO 106 Orientation to Biology .....	2
MTH 105 College Algebra .....	3
Elective .....	2
Physical education activity or military science .....	1
Second Semester .....	14-15
SPH 121 Fundamentals of Speech .....	2
CHM 132 General Chemistry II .....	4
MTH 107 Trigonometry (if not taken in high school) .....	2
Physical education activity or military science .....	1
Electives .....	5-6

### Second Year

First Semester .....	15-16
ZOO 222 Zoology .....	4
CHM 371 Organic Chemistry I .....	3
Electives .....	8-9
Second Semester .....	15-16
CHM 372 Organic Chemistry II .....	3
CHM 373 Organic Chemistry Laboratory .....	2
Electives .....	10-11

### Third Year

First Semester .....	15-16
ZOO 324 Comparative Anatomy of Vertebrates .....	4
PHY 221 Mechanics, Sound and Heat .....	4
Electives .....	7-8
Second Semester .....	15-16
PHY 222 Electricity and Light .....	4
Electives .....	11-12

### 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. Two-year programs are also 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, psychology, sociology, and political science, plus electives in social science, natural science and humanities will generally be transferable. More specific descriptions of requirements should be obtained by writing to the schools in question since requirements vary from school to school. Catalogs and brochures are also available from pre-dental advisers.

### Suggested Courses:

ENG 121 English Composition  
 SPH 121 Fundamentals of Speech  
 CHM 119 Fundamentals of Chemistry  
 PSY 101 or 102 General Psychology  
 SOC 105 Introductory Sociology  
 PLS 112 American Government

## Electives:

Social Science and Humanities  
History, Sociology, Anthropology  
Literature  
Philosophy, Religion  
Art, Music, Dramatic Arts

## PRE-MORTUARY SCIENCE CURRICULUM

Adviser Chairman, **Edward L. Compere, Jr.**  
(487-2057)  
Chemistry Department

The pre-mortuary program requires two academic years. Before entering the professional mortuary school, the student must complete at least 60 semester hours of college work, including the following required courses.

	Semester Hours
ENG 121 English Composition .....	3
English writing elective (ENG 215, 225 or 120) .	3
BIO 105 Biology and the Human Species .....	4
PSY 101 General Psychology .....	3
MTH 104 Intermediate Algebra or other math elective .....	3
CHM 131 General Chemistry I, 132 General Chemistry II .....	9
Social Science electives .....	6
General electives .....	29
The Board of Examiners in Mortuary Science recommends use of some of the elective hours for courses in the following areas. Some suggested appropriate courses are included in parentheses.	
Public Speaking (SPH 121 or 124, 225, 226, 227)	
Behavioral Sciences (PSY 225, 323; SOC 105, 311)	
First Aid (PED 210)	
Business (ADS 100, 293, 308; ACC 240; ECO 200 or 201; MGT 382; MKT 360)	
Counseling (G&C 405, with permission)	

## PRE-PHARMACY CURRICULUM

Advisers, **Edward L. Compere, Jr.** (487-2057),  
**Stewart D. Work** (487-2124)  
Chemistry Department

## One Year

	Semester Hours
Group I Drama, Language, Literature and Speech .	5
ENG 121 English Composition .....	3
SPH 121 Fundamentals of Speech .....	2
Group II Science .....	17-21
BIO 105 Biology and the Human Species or BIO 106 Orientation to Biology .....	2-4
CHM 131 General Chemistry I .....	5
CHM 132 General Chemistry II .....	4
BOT 221 General Botany .....	4
ZOO 222 General Zoology .....	4
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Electives .....	8-4
Total .....	32

One year of college work will admit students to a professional school of pharmacy. Although the complete course in some pharmacy colleges has been lengthened to five years, the chief sequences of the professional course require three years. The accredited pharmacy schools throughout the United States have a standard rule that students in these schools must take the prescribed courses in a definite sequence. This necessitates three full years of work in the pharmacy school regardless of the number of years in college work preceding entrance to the pharmacy school. This is known as the "six semester rule." Thus, a minimum total of four or five years is required for a degree in pharmacy. With regard to the pre-professional program outlined above, many students may advantageously spend two years in such preparation in view of the trend toward an overall five year curriculum in pharmacy colleges. It is suggested that the eight hours of electives be chosen from the following fields: economics, history, mathematics, psychology and political science.

For those students who may wish to continue in graduate study and research, German and French should be included. Obviously, more than one year of pre-professional work would then be required.

PROFESSIONAL CURRICULUM  
IN CHEMISTRY

This curriculum provides the necessary background for those planning to become professional chemists. The curriculum meets the requirements established by the American Chemical Society for professional education in chemistry at the bachelor's level. The Department of Chemistry has been approved by the A.C.S. as providing the facilities, faculty and course offerings essential for a professional program. Students successfully completing this curriculum are prepared to enter technical positions in industrial or governmental research or to undertake graduate study in chemistry. Further work on the graduate level is highly recommended for those who are capable.

A total of 27 semester hours in mathematics and physics, required by the curriculum as prerequisites for advanced chemistry courses, constitutes the only required minor.

Students on this program select either a Bachelor of Science or Bachelor of Arts degree, and must follow the curriculum requirements listed on page 31. While doing so, all students must complete the minimum of 40 semester hours of credit in the four areas of Basic Studies, as specified in detail on page 32. Students majoring in chemistry will automatically satisfy the Group II requirements in the Basic Studies program. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation (including four semester hours of physical education).

Following is a list of the required courses arranged in a recommended sequence. This sequence a) assures satisfaction of prerequisite requirements, b) has no semesters with more than one chemistry laboratory course and c) allows the student maximum freedom in his senior year in the selection of advanced electives from among such offerings as Special Topics (477, 478), undergraduate research (498, 499), and graduate courses.

Courses in computer programming are highly recommended for all professional chemistry majors.

For students planning graduate study in chemistry (especially organic chemistry), ten semester hours or an equivalent reading knowledge of a foreign language, preferably German, are recommended.

## First Year

## Semester Hours

## First Semester

CHM 131 General Chemistry I .....	5
*MTH 120 Calculus I .....	4

## Second Semester

CHM 132 General Chemistry II .....	4
MTH 121 Calculus II .....	4
MTH 122 Elementary Linear Algebra .....	2

## Second Year

## First Semester

CHM 281 Quantitative Analysis .....	4
CHM 371 Organic Chemistry I .....	3
MTH 223 Multivariable Calculus .....	4
PHY 223 Mechanics, Sound and Heat .....	5

## Second Semester

CHM 372 Organic Chemistry II .....	3
CHM 373 Organic Chemistry Laboratory .....	2
MTH 325 Differential Equations and Vector Analysis .....	3
PHY 224 Electricity and Light .....	5

## Third Year

## First Semester

CHM 461 Physical Chemistry I .....	3
CHM 433 Inorganic-Organic Synthesis Labor- atory .....	2

## Second Semester

CHM 462 Physical Chemistry II .....	3
CHM 463 Physical Chemistry Laboratory .....	2

## Fourth Year

CHM 432 Advanced Inorganic Chemistry .....	3
CHM 481 Instrumental Analysis .....	4

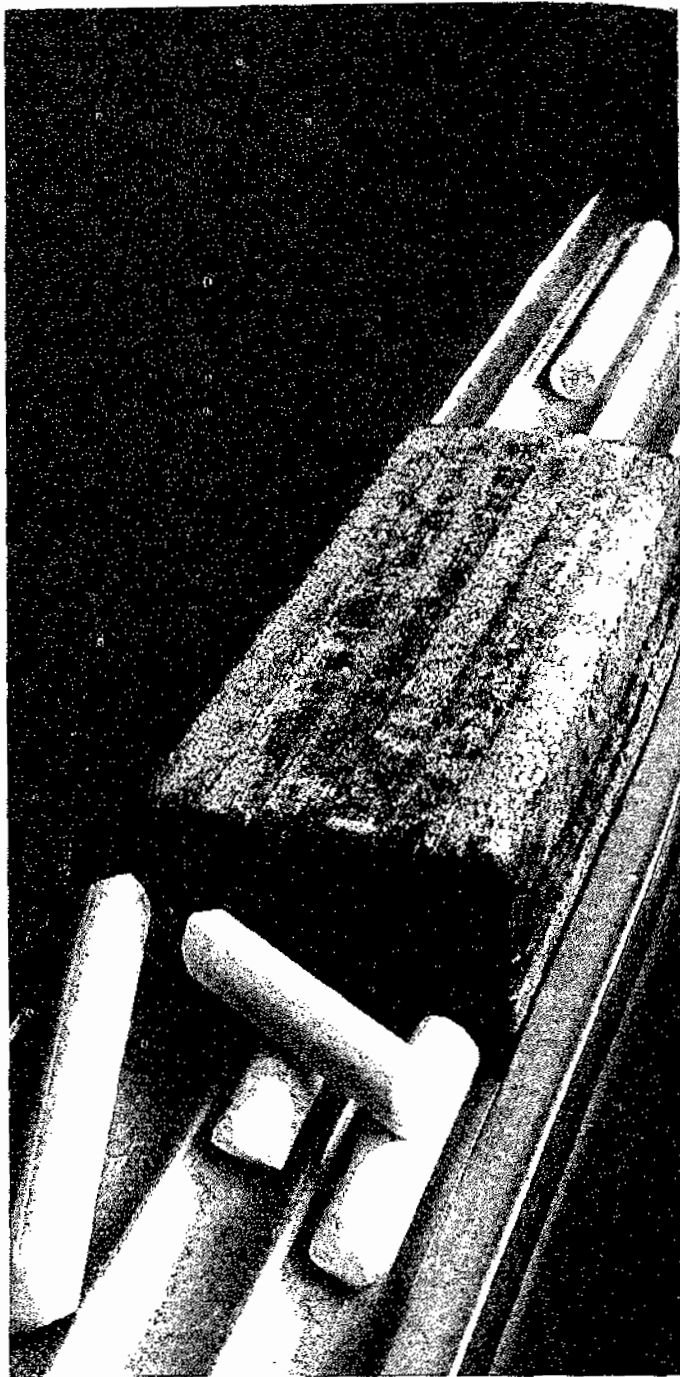
Advanced elective courses (Two advanced courses from the list below must be selected; at least one must be from the Chemistry Department).

## Approved Advanced Electives:

## Chemistry

- CHM 451-452-453 Biochemistry
- CHM 485 Radioisotope Techniques in Chemistry and Biology
- CHM 477-478 Special Topics
- CHM 498-499 Undergraduate Research in Chemistry
- CHM 553 Enzymology
- CHM 555 Biochemistry
- CHM 561 Advanced Physical Chemistry
- CHM 565 Nuclear Chemistry
- CHM 571 Advanced Organic
- CHM 572 Spectrometric Organic Structure Determination
- CHM 574 Advanced Organic Chemistry Topics
- CHM 575 High Polymer Chemistry

If 105 College Algebra must be taken due to deficient high school preparation, the mathematics prerequisites for this sequence will still be met if the student begins the calculus sequence in his second semester.



## Mathematics:

- CSC 237 Computer Programming and Numeric Methods
- CSC 337 Programming Languages
- MTH 425 Mathematics for the Scientist
- Other 400 level courses with department approval

## Physics:

- PHY 430 Intermediate Mechanics I
- PHY 440 Optics
- PHY 450 Electricity and Magnetism
- PHY 452 Electrical Measurements
- PHY 456 Electronics for Scientists
- PHY 460 Heat and Thermodynamics
- PHY 470 Atomic Physics
- PHY 471 Nuclear Physics
- PHY 475 Introduction to Quantum Mechanics
- PHY 476 Solid State Physics

## COMMUNICATION AND THEATRE ARTS

Department Head: Dennis M. Beagen

Professors: Henry B. Aldridge, P. George Bird, Harry W. Bowen, Gail W. Compton, James W. Gousseff, Virginia G. Koste, Annette Martin, Sally McCracken, Thelma McDaniel, Mitchel R. McElya, Thomas J. Murray, Parker R. Zellers

Associate Professors: Gary L. Evans, Katherine E. Holkeboer, Willie B. Morgan, Kenneth W. Stevens, William V. Swisher, Arthur J. Yahrmatter

Assistant Professors: Louis C. Saalbach

Instructors: Marvin L. Sims, Patricia M. Zimmer

The Department of Communication and Theatre Arts offers a variety of programs which provide a foundation in the many fields of oral communication. The Bachelor of Science and Bachelor of Arts degrees are offered with the following Departmental majors and minors:

Speech  
Dramatic Arts  
Speech and Dramatic Arts  
Radio-Television-Film  
Literature, Language, Speech and  
Dramatic Arts Group Major  
Literature, Library Science, and  
Drama for the Young Group Major  
Arts Management Curriculum  
Musical Theatre Minor

The majors available in Communication and Theatre Arts provide students with a good foundation for careers in broadcasting, theatre, public relations, teaching, sales and other fields in which outstanding oral communication skills are necessary. An undergraduate major in one of these areas provides a very useful preparation for professional studies such as law and the ministry. Minors in such areas as business, psychology, political science, English, and sociology are helpful in career preparation.

Students majoring in radio-television-film study all aspects of these media, with an emphasis on production and performance techniques. Practice may be applied to theory both in course work and through first-hand production experience in the two campus radio stations, WEMU-FM and WQBR, and the closed-circuit TV studio.

Students who major in arts management will develop a variety of business skills ranging from promotion and advertising to personnel management and cost accounting while gaining a high level of sensitivity to the aesthetics of a variety of art forms.

All of the areas of instruction in the Department of Communication and Theatre Arts are self-development as well as career development fields. The courses within the Department can serve any student interested in the personal benefits of developing qualities like leadership, creativeness, self-expression, and social responsibility. These are assets to a student in many circumstances in addition to the world of careers.

### GRADUATE STUDY

The Communication and Theatre Arts Department offers graduate work leading to the master's degree. For descriptions of graduate courses and programs in the Communication and Theatre Arts Department, please consult the Graduate Catalog.

## COMMUNICATION COURSES

New courses are identified with a bullet •.

### Fundamentals of Speech

**SPH 121 Fundamentals of Speech.** Two sem hours  
Designed to provide the student with both theory and practice in the principles of effective speech composition and presentation. Not open to students with credit in SPN 124 Fundamentals of Speech.

**SPH 124 Fundamentals of Speech.** Three sem hours  
This course may be substituted for 121 Fundamentals of Speech. It provides more intensive theory and practice in the principles of effective speech composition and presentation. Not open to students with credit in SPH 121 Fundamentals of Speech.

### Communication and Public Address

**SPH 224 Public Speaking.** Three sem hours  
A course designed to give the student understanding of the characteristics of various types of speeches and speech situations and practice in the preparation and delivery of speeches for various occasions.  
Prereq: SPH 121 or SPH 124 Fundamentals of Speech.

**SPH 225 Listening Behavior.** Three sem hours  
The study of the behavior, processes, and theory of human listening; practice in improving listening skills.  
Prereq: SPH 121 or SPH 124 Fundamentals of Speech.

**SPH 226 Non-Verbal Communication.** Three sem hours  
An examination of non-verbal and situational behaviors, relationships, objects and events surrounding speech communication acts.  
Prereq: SPH 121 or SPH 124 Fundamentals of Speech.

**SPH 227 Interpersonal Communication.** Three sem hours  
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.

**SPH 321 Parliamentary Procedure.** Two sem hours  
A study of the basic principles of parliamentary procedure, with special reference to the generally recognized rules governing the conduct of business in group meetings. Practice in chairing meetings, participating and in serving as parliamentarian.

**SPH 350 Persuasion.** Three sem hours  
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: SPH 121 or SPH 124 Fundamentals of Speech.

**SPH 352 Communication in Negotiations.** Three sem hours  
Practical communication skills for negotiating a labor union collective bargaining agreement and effective grievance handling.  
Prereq: SPH 121 or SPH 124 Fundamentals of Speech or permission of the department.

**SPH 353 Organizational Communication in Unions.** Three sem hours  
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: SPH 121 or SPH 124 Fundamentals of Speech or permission of the department.

**SPH 354 Organizational Communication.** Three sem hours  
An investigation of information patterns and persuasion in the formal organization.  
Prereq: SPH 121 or SPH 124 Fundamentals of Speech.

**SPH 356 Argumentation and Debate.** Three sem hours  
Emphasizes the principles of logical reasoning and oral presentation of reasoned discourse in group situations. Exercise in debate and in general argumentative speaking.  
Prereq: SPH 121 or SPH 124 Fundamentals of Speech.

**SPH 359 Small Group Communication.** Three sem hours  
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: SPH 121 or SPH 124 Fundamentals of Speech.

• **SPH 387, 388, 389 Cooperative Education in Speech Communication.** One, two, three sem hours  
One term of supervised education work in speech communication. An evaluation is required at the end of each employment period.  
Prereq: Nine credit hours in speech communication, approval by University Cooperative Education Office and the department.

**SPH 440 Survey of Public Address.** Three sem hours  
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 speech, junior standing or permission of the department.

**SPH 460 Theory of Speech Criticism.** Three sem hours  
A study of the theoretical and critical works of ancient, Renaissance and modern rhetoricians.  
Prereq: Three courses in speech, junior standing or permission of the department.

**SPH 475 Research in Speech Communication.** Three sem hours  
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 speech, junior standing or permission of the department.

**SPH 477, 478, 479 Special Topics.** One, two, three sem hours.  
These courses are offered on an experimental basis or for some special need.

**SPH 485 Theories of Speech Communication Behavior.** Three sem hours  
Study of the theories which have made significant contributions to the understanding of speech communication behavior.  
Prereq: Three courses in speech, junior standing or permission of the department.

**SPH 487, 488, 499 Internship in Speech Communication.** One, two, three sem hours  
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: At least 20 semester hours of speech communication courses and permission of the department.

**SPH 497, 498, 499 Independent Study.** One, two, three sem hours  
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally such work is restricted to proficient students in the senior year under the general conditions prescribed for honors courses.  
Prereq: Permission of the department.

**SPH 166, 266, 366, 466 Forensics.** One sem hour 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: Permission of the department.

## Interpretation

**SPH 210 Interpretative Reading.** Three sem hours (formerly 132)  
Deals with 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: SPH 121 or SPH 124 Fundamentals of Speech.

**SPH 311 Interpretation of Prose.** Three sem hours  
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 will be given to problems involved in the interpretation of prose.  
Prereq: SPH 210 Interpretative Reading.

**SPH 314 Interpretation of Drama.** Three sem hours  
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: SPH 210 Interpretative Reading or permission of the department.

**SPH 324 Oral Interpretation of Children's Literature.** Three sem hours  
A study of the selection, understanding and oral interpretation of literature for children. Experience in reading to children of various ages is provided.  
Prereq: SPH 207 Literature for Elementary Grades or departmental major or minor.

**SPH 377, 378, 379 Special Topics.** One, two, three sem hours  
These courses are offered on an experimental basis or for some special need.



**SPH 410 Oral Interpretation of Shakespeare.****Three sem hours**

Deals with specific problems involved in the oral interpretation of Shakespeare. Emphasis will be placed on language style and characterization problems. Students will work individually and collectively in orally interpreting selections from Shakespeare's works.

Prereq: SPH 210 Interpretative Reading and two courses in literature, one of which should be either LIT 210 Shakespeare or LIT 103 The Reading of Literature: Drama, or permission of the department.

**SPH 411 Advanced Problems in Interpretation.****Three sem hours**

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 permission of the department.

**SPH 412 Oral Interpretation of Poetry.****Three sem hours**

Deals with the application of the principles of oral interpretation to the reading of poetry, with emphasis on modern and contemporary poetry.

Prereq: SPH 210 Interpretative Reading.

**SPH 414 Development and Theory of Oral Interpretation.****Three sem hours**

Deals with 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 permission of the department.

**SPH 168, 268, 368, 468 Oral Interpretation.****One sem hour each**

Students who participate in these 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 one activity or in several. Admission to the activity does not ensure credit.

Prereq: SPH 210 Interpretative Reading or permission of the department.

**Radio-TV-Film****SPH 130 Mass Media in America.****Three sem hours**

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.

Not to be counted toward major or minor in Radio-TV-Film.

**SPH 140 Introduction to Broadcasting and Film.****Three sem hours**

An introduction to mass communications in the United States. Emphasis is placed on radio-television-film development, programming, technology and current events.

Prereq: SPH 121 or SPH 124 Fundamentals of Speech.

**SPH 141 Introduction to Radio-TV-Film Production.****Three sem hours**

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.

Prereq: SPH 140 Introduction to Broadcasting and Film or taken concurrently.

**SPH 240 Broadcast Announcing Techniques.****Three sem hours**

A study of the various types of radio and television non-dramatic speaking such as news, sports, interviews and discussions. Practice and evaluation of announcing types and styles.

Prereq: SPH 140 Introduction to Broadcasting and Film and SPH 141 Introduction to Radio-TV-Film Production or permission of the department.

**SPH 245 Introduction to Film.****Three sem hours**

An introduction to the historical development of film as an art form, with attention to cinematography, editing, scenarios, lighting and acting and directing styles. The same as LIT 245.

Prereq: Two courses in literature and SPH 121 or SPH 124 Fundamentals of Speech. Students cannot earn credit in both SPH 245 and LIT 245 Introduction to Film.

**SPH 331 Fundamentals of Radio Production and Direction.****Three sem hours**

The basic fundamentals of preparation, production, direction and evaluation of both dramatic and non-dramatic radio programs.

Prereq: SPH 140 Introduction to Broadcasting and Film and SPH 141 Introduction to Radio-TV-Film Production or permission of the department.

**SPH 332 Fundamentals of Television Production and Direction.****Three sem hours**

The basic fundamentals of preparation, production, direction and evaluation of both dramatic and non-dramatic television programs.

Prereq: SPH 140 Introduction to Broadcasting and Film and SPH 141 Introduction to Radio-TV-Film Production or permission of the department.

**SPH 333 Fundamentals of Film Production.****Three sem hours**

An introduction to the fundamentals of film production including camera, lenses, film stocks and editing facilities. Three filmed projects will be required. Laboratory fee: \$15.00.

Prereq: SPH 140 Introduction to Broadcasting and Film and SPH 141 Introduction to Radio-TV-Film Production or permission of the department.

**SPH 340 Broadcast Performance Techniques.****Three sem hours**

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. (It is recommended students take SPH 210 or SPH 242 prior to enrolling in this course.)

Prereq: SPH 140 Introduction to Broadcasting and Film and SPH 141 Introduction to Radio-TV-Film production or permission of the department.

**SPH 343 Broadcast News.****Three sem hours**

An examination and practical application of interview techniques, information sources and preparation of material for radio and television news programs and documentaries.

**SPH 344 Broadcast Continuity Writing.****Three sem hours**

A study of the forms of non-dramatic writing for radio and television including news, commercials, public service announcements, music continuity, feature stories, narrations, talks and short documentaries. Special attention is given to the writing of radio and television scripts.

Prereq: SPH 140 Introduction to Broadcasting and Film or permission of the department.

• **SPH 387, 388, 389 Cooperative Education in Television-Film. One, two, three sem hours**

One term of supervised education work in radio-television-film. An evaluation is required at the end of each employment period.

*Prereq: Nine credit hours in radio-television-film, approval by University Cooperative Education Office and the department.*

**SPH 431 Advanced Radio Production and Direction. Three sem hours**

A continuation of 331 Fundamentals of Radio Production and Direction. Advanced theory and practical experience in production of longer, more complex dramatic and non-dramatic material for radio.

*Prereq: SPH 331 Fundamentals of Radio Production and Direction or permission of the department.*

**SPH 432 Advanced Television Production and Direction. Three sem hours**

A continuation of 332 Fundamentals of Television Production and Direction. Principles, practices and techniques of directing and producing dramatic material for television. Major television formats will be discussed and analyzed. Practical experience in depth will be provided for each student.

*Prereq: SPH 332 Fundamentals of Television Production and Direction or permission of the department.*

• **SPH 433 Advanced Film Production. Three sem hours**

Students make complete 16mm color films participating in all stages of production from scripting, filming, and developing an original soundtrack, to the final print.

*Prereq: SPH 333 and permission of the department; additional materials fee required.*

**SPH 445 Film Theory. Three sem hours**

An intensive study of major theories of film production, performances and criticism. Illustrated by selected feature film. (It is recommended that students take Speech 245 before enrolling in this course.)

**SPH 446 Broadcasting in Society. Three sem hours**

A study of the developmental growth of radio and television broadcasting, their role in society, governmental influences, programming at station and network levels and research in broadcasting.

*Prereq: SPH 121 or SPH 124 Fundamentals of Speech or permission of the department.*

**SPH 447 Broadcast Management. Three sem hours**

An analysis of station management in the areas of advertising, programming, promotion, applied research, labor, and public relations.

*Prereq: Nine hours of Broadcasting-Film or permission of the department.*

**SPH 477, 478, 479 Special Topics. One, two, three sem hours**

These courses are offered on an experimental basis or for some special need.

**SPH 487, 488, 489 Internship in Radio-Television-Film. One, two, three sem hours**

One semester of practical, on-the-job work experience and training (four hours per week minimum) at selected on-campus or off-campus radio-television-film facilities.

*Prereq: At least 20 semester hours of radio-television-film courses and permission of the department.*

**SPH 165, 265, 365, 465 Broadcasting-TV. One sem hour each**

**SPH 169, 269, 369, 469 Broadcasting-Radio. One sem hour each**

Students who participate in these 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: 140 Introduction to Broadcasting and Film and 141 Introduction to Radio-TV-Film Production or permission of the department.*

## Speech Science and Education

**SPH 102 Voice Development. One sem hour**

A laboratory for developing strength and control of the human speaking voice through a regular program of physical and tonal exercises, recordings, readings and choral speaking. Students will attend two regularly scheduled hours each week and additional sessions as arranged.

**SPH 202, 302, 402 Voice Development. One sem hour each**

Advanced laboratory exercises and specialized projects:

**202** - Articulation and delivery for broadcasting/forensics.

**302** - Energetic vocal skills for theatre/interpretation.

**402** - Skills, theory, and individualized projects.

*Prereq: SPH 102 Voice Development or permission of the department.*

**SPH 205 Voice and Articulation. Three sem hours**

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: SPH 121 or SPH 124 Fundamentals of Speech or permission of the department.*

**SPH 301 Speech Science. Three sem hours**

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 SPH 205 Voice and Articulation, or SPH 210 Interpretative Reading, or SPH 240 Broadcasting and Film Performance Techniques I, or SPH 242 Fundamentals of Acting, or permission of the department.*

**SPH 307 The Teaching of Speech. Three sem hours**

Emphasizes the analysis and construction of courses of study, evaluation of textbooks and teaching materials, methods of directing extra-curricular speech activities and demonstrations of teaching methods. Required of students majoring in speech in the junior or senior high school curriculum, but does not carry credit in any other curriculum. Does not count on the major or minor.

*Prereq: Four courses in speech: No students on academic probation.*

**SPH 400 Phonetics and Dialects of Spoken English. Three sem hours**

A summary survey of the physiology and physics of speech sounds. Intensive study of the use of the International Phonetic Alphabet in dialectology and speech improvement. Comparative study of phonemic systems and the Initial Teaching Alphabet.

*Prereq: SPH 301 Speech Science, SPH 205 Voice and Articulation or permission of the department.*

• **SPH 404 Dynamic Speaking Skills.** Three sem hours  
Advanced 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 SPH 102 Voice Development or SPH 205 Voice and Articulation or request dept. permission to take SPH 402 Voice Development concurrently.

**SPH 405 Voice and Dialects.** Three sem hours  
Advanced projects in preparing oral presentations and characterizations in regional and foreign dialects.  
Prereq: SPH 102 or SPH 402 Voice Development or SPH 205 Voice and Articulation or permission of the department.

## THEATRE ARTS COURSES

New courses are identified with a bullet •.

### Theatre

**SPH 106 Introduction to Performing Arts.** Three sem hours  
The arts of dance, theatre and music are studied both individually and collectively with the objective of determining their respective elements and of arriving at a better understanding and appreciation of the great works of art in the three fields. The place of these arts in our present day environment and their contribution to a richer life receive special emphasis. Attendance required at specified on-campus performances. The same as MUS and PED 106.

• **SPH 126 The Age of Shakespeare.** Three sem hours  
(See Humanities Program, page 130).

• **SPH 127 The Splendid Centuries of Austria.** Three sem hours  
(See Humanities Program, page 130).

**SPH 150 Introduction to Theatre.** Three sem hours  
An introduction to the arts and crafts of the theatre including the legitimate stage, television and motion picture drama. The purpose of the course is to foster appreciation of theatre through an understanding of its historical development, its forms and styles and its production techniques. Attendance required at selected EMU Theatre productions. Required of dramatic arts majors and minors.

**SPH 151 Black Theatre: An Introduction.** Three sem hours  
An introductory survey of the roots, the purposes and the contemporary manifestations of the theatre and drama reflecting the black experience.

• **SPH 152 Introduction to Technical Theatre.** Three sem hours  
An introduction to design and execution in the various areas of technical theatre: scenery, costume, properties, makeup, and lighting. Laboratory will be arranged to ensure practical experience. No prerequisites.

**SPH 153 Introduction to the Theatre Crafts.** Two sem hours  
The principles and practical techniques of planning, constructing and coordinating the behind-the-scenes elements of play production (set pieces, lighting, costuming, make-up, sound, properties). Emphasis is on simple materials and techniques usable by students and children in school and recreational situations. Designed for non-dramatic arts majors.

**SPH 155 Play Production.** Three sem hours  
An introduction to the process of analyzing, directing and staging plays; demonstration and practice. Laboratory hours by arrangement.  
Prereq: SPH 150 Introduction to Theatre is strongly recommended for departmental majors and minors.

**SPH 158 Fundamentals of Acting.** Three sem hours  
A study of the fundamental theories and techniques of acting. Major emphasis will be placed on theatre acting, but consideration will also be given to radio and television acting. Laboratory hours by arrangement.  
Prereq: Sophomore standing.

**SPH 251 Black Theatre: Creative Problems.** Three sem hours  
A consideration of those creative aspects of the theatre performance particular to the Black Theatre.

**SPH 252 Stagecraft.** Three sem hours  
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: SPH 155 Play Production is strongly recommended for departmental majors and minors.

**SPH 254 Stage Makeup.** One sem hour  
The theory and techniques of theatrical makeup. Laboratory hours to be arranged.

• **SPH 258 Mime/Pantomime and Mask.** Three sem hours  
A performance-oriented survey of techniques, styles, history and theory of the silent performing arts of mime/pantomime and mask. Physical preparation, preparation of production materials, scripting, and actual performance.  
No prerequisites.

**SPH 351 Scene Design.** Three sem hours  
Includes 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: SPH 252 Stagecraft, SPH 155 Play Production or permission of the department.

**SPH 355 Play Direction.** Three sem hours  
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: SPH 155 Play Production or permission of the department.

**SPH 358 Intermediate Acting.** Three sem hours  
The creation of character and characterization by the actor. Analysis, development and performance of roles studied in depth.  
Prereq: SPH 158 Fundamentals of Acting or permission of the department.

**SPH 360 Dramatic Composition.** Three sem hours  
An examination of the elements of dramatic structure through the analysis and composition of works of varying scope. (Emphasis on adult plays for the stage with the special problems of drama for children and for the various broadcast media also considered.)  
Prereq: SPH 155 Play Production or permission of the department.

**SPH 361 Dramatic Writing.** Two sem hours  
Intensive concentration on the writing of a significant example of adult or children's drama for the stage or the broadcast media.  
Prereq: SPH 360 *Dramatic Composition* or permission of the department.

**SPH 362 Stage Lighting.** Two sem hours  
Stage lighting; historical development, basic electrical theory, switchboards and lighting instruments, color theory, principles and practices in stage lighting. Laboratory hours to be arranged.  
Prereq: SPH 252 *Stagecraft*, SPH 155 *Play Production* or permission of the department.

**SPH 363 Stage Costume: History and Theory.** Three sem hours  
A survey of the principles and practices of stage costuming from antiquity to present.  
Prereq: SPH 155 *Play Production* or permission of the department.

**SPH 364 Stage Costume: Design and Construction.** Three sem hours  
The fundamentals of designing theatrical costumes and a study of specific construction problems found in the making of period costumes.  
Prereq: SPH 363 *Stage Costume: History and Theory* or permission of the department.

• **SPH 387, 388, 389 Cooperative Education in Arts Management.** One, two, three sem hours  
One term of supervised education work in arts management. An evaluation is required at the end of each employment period.  
Prereq: Nine credit hours in arts management, approval by University Cooperative Education Office and the department.

**SPH 425, 426, 427, 428 Honors Course in Theatre.** One or two sem hours  
Individual study and/or research in specialized areas of theatre. Open only to dramatic arts majors. Regulations governing honors courses must be followed (see page 27).

**SPH 450 History of the Theatre to 1642.** Three sem hours  
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 permission of the department.

**SPH 451 History of the Theatre: 1642 to the Present.** Three sem hours  
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 permission of the department.

**SPH 452 Theatre Management.** Two sem hours  
The materials and procedures of theatrical business management, including scheduling, budgeting, accounting, ticket sales, house management, program editing and public relations.

**SPH 456 Advanced Directing Lab.** One sem hour  
Intensive scene study of selected dramatic styles and theatrical variants.  
Prereq: One course in play direction or permission of the department.

**SPH 457 Advanced Acting Lab.** One sem hour  
Intensive scene study of selected dramatic styles and theatrical variants.  
Prereq: One course in acting or permission of the department.

**SPH 458 Advanced Acting.** Three sem hours  
Theoretical and practical considerations involved in the acting of selected non-realistic styles of drama.  
Prereq: One course in acting or permission of the department.

**SPH 459 Advanced Directing.** Three sem hours  
Theoretical and practical considerations involved in the directing of selected non-realistic styles of drama.  
Prereq: One course in play direction or permission of the department.

**SPH 461 Problems in Acting.** Two sem hours  
Discussion in depth of outstanding representatives from the literature of the field of acting.  
Prereq: Nine hours of credit in dramatic arts or permission of the department.

**SPH 462 Problems in Directing.** Two sem hours  
Discussion in depth of outstanding representatives from the literature of the field of directing.  
Prereq: Nine hours of credit in dramatic arts or permission of the department.

**SPH 477, 478, 479 Special Topics.** One, two, three sem hours  
These courses are offered on an experimental basis or for some special need.

**SPH 487, 488, 489 Internship in Arts Management.** One, two, three sem hours  
One semester of practical on-the-job work experience and training (four hours per week minimum) in arts management on or off campus.  
Prereq: At least 20 semester hours in arts management.

**SPH 496 Seminar in Theatre.** Two sem hours  
This course is designed to provide the student with opportunities to explore areas in theatre not covered in the regular course offerings.  
Prereq: Open only to departmental seniors or by permission of the department.

**SPH 497, 498, 499 Independent Study.** One, two, three sem hours  
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally such work is restricted to proficient students in the senior year under the general conditions prescribed for honors courses.  
Prereq: Permission of the department.

**SPH 167, 267, 367, 467 Theatre Practice.**

**One sem hour each**

Students participating in specified positions of major responsibility in the productions of the EMU Theatre, the Department's instructional activity program in dramatic arts, may, by prior permission of the Department, receive one hour of credit for Theatre Practice activity during a single semester. The specified positions and prerequisites are:

**167**—Heading a major technical crew for a faculty-directed production.

Prereq: *SPH 155 Play Production or SPH 252 Stagecraft 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: *SPH 167 Theatre Practice and SPH 355 Play Direction.*

**367**—Directing an Experimental Series production.

Prereq: *SPH 167 Theatre Practice and SPH 355 Play Direction.*

**467**—Additional experience in the responsibilities listed for 367.

Prereq: *SPH 167, SPH 267, or SPH 367.*

**SPH 497, 498, 499 Independent Study in Drama for the Young.**

**One, two, three sem hours**

Individual projects, research or advanced reading programs in dramatic arts for children. Designed for students prepared to go beyond available course work.

Prereq: *Permission of the department.*

**SPH 168, 268, 368, 468 Interpretation. One sem hour each**

(Available with a focus on oral interpretation of literature for the young.) Students who participate in these 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 one activity or in several. Admission to the activity does not ensure credit.

Prereq: *210 Interpretative Reading or permission of the department.*

**Drama for the Young**

**SPH 222 Drama and Play in Human Experience.**

**Three sem hours**

A study of drama experience as intrinsic in human development. An introduction to spontaneous drama 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.

**SPH 322 Theatre for Children.**

**Three sem hours**

A study of the development, philosophy and techniques of theatre for children, with emphasis on the relevant dramatic literature and its staging.

Prereq: *One course in drama.*

**SPH 323 Improvisation.**

**Three sem hours**

Explorations of spontaneous dramatic playing through intensive exercises and dramatic games meant to generate greater individual freedom and self-discipline, as well as to expand resources and techniques for teaching and directing. Opportunities to lead experimental small-group sessions.

Prereq: *SPH 222 Drama and Play in Human Experience or departmental major or minor.*

**SPH 324 Oral Interpretation of Children's Literature**

**Three sem hours**

See Page 78 for description.

**SPH 377, 378, 379 Special Topics.**

**One, two, three sem hours**

These courses are offered on an experimental basis or for some special need.

**• SPH 429 History and Theory of Developmental**

**Drama/Theatre.**

**Three sem hours**

An introductory study of the history and theory of developmental drama/theatre.

No prerequisite.

**SPH 477, 478, 479 Special Topics.**

**One, two, three sem hours**

These courses are offered on an experimental basis or for some special need.

**SPEECH**

Adviser Chairman, **Gary Evans**

(487-3032)

Communication and Theatre Arts Department

**Speech Major (30 semester hours)**

(For those on either the teaching or non-teaching curriculum)

**I. Summary of Credit Requirements for major and minor**

	Major	Minor
A. Total Credit Requirements	30 hours	20 hours
B. Distribution of Credit Requirements		
1. Foundation Courses	5-6 hours	5-6 hours
2. Application Courses	9 hours	6 hours
3. Theory Courses	9 hours	3 hours
4. Electives	6-7 hours	5-6 hours

**Semester Hours**

**II. Program of Study**

	Semester Hours
A. Foundation Courses	
1. SPH 121 Fundamentals of Speech or . . . .	2
2. SPH 124 Fundamentals of Speech . . . . .	3
3. SPH 224 Public Speaking . . . . .	3
4. SPH 227 Interpersonal Communication . . . . .	3
B. Application Courses	
1. SPH 166-466 Forensics . . . . .	1
2. SPH 321 Parliamentary Procedure . . . . .	2
3. SPH 350 Persuasion . . . . .	3
4. SPH 356 Argumentation and Debate . . . . .	3
5. SPH 359 Small Group Communication . . . . .	3
C. Theory and Research Courses	
1. SPH 440 Survey of Public Address . . . . .	3
2. SPH 460 Theory of Speech Criticism . . . . .	3
3. SPH 475 Research in Speech Communication . . . . .	3
4. SPH 485 Theories of Speech Communication . . . . .	3
D. Elective Courses	
Electives may be chosen from courses in the Department of Communication and Theatre Arts.	

**III. Optional concentration in Broadcasting or Interpretative Reading**

With department permission, ten (10) hours of course work in broadcasting or interpretative reading may be substituted to fulfill the credit requirement for the major or minor in speech.

**A. Interpretation Concentration**

SPH 210; and one of the following: SPH 311, 314, 324, 412; and either SPH 411 or 414; and one semester hour of credit in an interpretative reading activity course.

**B. Broadcasting Concentration**

SPH 140 and 141; one of the following: SPH 240, 245, 331, 332, 333, 343, 344; and one of the following: SPH 431, 432, 445, 446, 447.

**Speech Minor** (for those on elementary, library science and special education curriculums only) - (20 semester hours)

**Semester Hours**

One of the following: ..... 2-3

SPH 121 Fundamentals of Speech or

SPH 124 Fundamentals of Speech

One of the following: ..... 3

SPH 210 Interpretative Reading

SPH 205 Voice and Articulation

SPH 301 Speech Science

SPH 400 Phonetics and Dialects of Spoken

English

One of the following: ..... 3

SPH 155 Play Production

SPH 222 Drama and Play in Human Experience

SPH 252 Stagecraft

SPH 323 Improvisation

One of the following: ..... 3

SPH 224 Public Speaking

SPH 350 Persuasion

SPH 356 Argumentation and Debate

SPH 359 Small Group Communication

Electives from the above courses or the following: 9-8

SPH 165 Broadcasting (TV)

SPH 166 Forensics

SPH 167 Theatre Practice

SPH 168 Interpretation

SPH 169 Broadcasting (Radio)

SPH 140 Introduction to Broadcasting and Film

SPH 322 Theatre for Children

SPH 497 Independent Study in Drama for the

Young

SPH 446 Broadcasting in Society

**Speech and Dramatic Arts Major** (30 semester hours)

Adviser-Chairman, **Willie B. Morgan**

(487-3031)

**Semester Hours**

SPH 121 Fundamentals of Speech or

SPH 124 Fundamentals of Speech ..... 2-3

SPH 140 Introduction to Broadcasting and Film

or SPH 446 Broadcasting in Society ..... 3

SPH 210 Interpretative Reading ..... 3

SPH 150 Introduction to Theatre ..... 3

SPH 224 Public Speaking or

SPH 350 Persuasion ..... 3

SPH 155 Play Production ..... 3

SPH 205 Voice and Articulation ..... 3

SPH 356 Argumentation and Debate or

SPH 359 Small Group Communication ..... 3

Electives in dramatic arts ..... 3

Electives in speech or dramatic arts ..... 4-3

**Speech and Dramatic Arts Minor** (20 semester hours)

Courses starred above, including both SPH 359 Small Group Communication and SPH 356 Argumentation and Debate.

**RADIO-TELEVISION-FILM**

Adviser Chairman, **Henry Aldridge**

(487-0064)

Communication and Theatre Arts Department

**Major** (32 semester hours) Non-Teaching

**Semester Hours**

**A. Foundation Courses** ..... 9-10

SPH 121 Fundamentals of Speech or

SPH 124 Fundamentals of Speech ..... 2-3

SPH 140 Introduction to Broadcasting and Film

SPH 141 Introduction to Radio-TV-Film Pro-

duction ..... 3

SPH 165-465 Broadcasting TV or

SPH 169-469 Broadcasting Radio ..... 1

**B. Production-Performance Courses** ..... 6

SPH 240 Broadcast Announcing Techniques ..

SPH 331 Fundamentals of Radio Production and

Direction ..... 3

SPH 332 Fundamentals of Television Production

and Direction ..... 3

SPH 333 Fundamentals of Film Production ...

SPH 340 Broadcast Performance Techniques ..

SPH 431 Advanced Radio Production and Di-

rection ..... 3

SPH 432 Advanced Television Production and

Direction ..... 3

SPH 433 Advanced Film Production ..... 3

**C. Writing and Theory Courses** ..... 6

SPH 245 Introduction to Film

SPH 343 Broadcast News

SPH 344 Broadcast Continuity Writing

SPH 445 Film Theory

SPH 446 Broadcasting in Society

SPH 447 Broadcast Management

**D. SPH 487 Internship in Radio-Television-Film** .. 1

**E. Electives from the Radio-Television-Film Area** 5-6

**F. Electives in Speech and Dramatic Arts outside**

the major area or in journalism ..... 3-4

**Radio-Television-Film Minor** (20 semester hours)

(Non-Teaching)

**Semester Hours**

**A. Foundation Courses** (8-9 hours)

SPH 121 Fundamentals of Speech or

SPH 124 Fundamentals of Speech ..... 2-3

SPH 140 Introduction to Broadcasting and Film

SPH 141 Introduction to Radio-TV-Film Pro-

duction ..... 3

**B. Production-Performance Courses** (6 hours)

SPH 165 Broadcasting-TV ..... 1

SPH 169 Broadcasting-Radio ..... 1

SPH 240 Broadcast Announcing Techniques ..

SPH 331 Fundamentals of Radio Production and

Direction ..... 3

SPH 332 Fundamentals of Television Production

and Direction ..... 3

SPH 333 Fundamentals of Film Production ...

SPH 340 Broadcast Performance Techniques ..

SPH 431 Advanced Radio Production and Di-

rection ..... 3

SPH 432 Advanced Television Production and Direction .....	3
SPH 433 Advanced Film Production .....	3
<b>C. Writing and Theory Courses (3 hours)</b>	
SPH 245 Introduction to Film .....	3
SPH 343 Broadcast News .....	3
SPH 344 Broadcast Continuity Writing .....	3
SPH 445 Film Theory .....	3
SPH 446 Broadcasting in Society .....	3
SPH 447 Broadcast Management .....	3

**D. Electives** ..... 3-2  
 Electives may be chosen from above courses, courses in the Communication and Theatre Arts Department or journalism courses.

It is recommended students consult with the Department of Communication and Theatre Arts before pursuing the Radio-TV-Film minor.

Students may still pursue the Radio-TV-Film option under the Speech major and minor.

## DRAMATIC ARTS

Adviser Chairman, **Parker Zeilers**  
 (487-1152)

Communication and Theatre Arts Department

### Dramatic Arts Major (30 semester hours)

	<b>Semester Hours</b>
<b>Required Courses:</b>	
SPH 150 Introduction to Theatre .....	3
SPH 152 Introduction to Technical Theatre ....	3
SPH 155 Play Production .....	3
SPH 158 Fundamentals of Acting .....	3
SPH 355 Play Direction .....	3
SPH 450 History of Theatre to 1642 .....	3
SPH 451 History of Theatre: 1642 to Present ...	3
SPH 167; plus 267 or 367 or 467 Theatre Practice	1
Electives (minimum of 5 hours must be in courses beyond the 200 level) .....	7-10

Electives are to be selected from Theatre Arts courses (except SPH 106, 153 and 555) OR from the following departmental areas:

*Drama for the Young Area:* SPH 322 Theatre for Children (3) OR SPH 323 Improvisation (3)

*Oral Interpretation Area:* SPH 314 Interpretation of Drama (3) OR SPH 410 Interpretation of Shakespeare (3)

*Radio-Television-Film:* SPH 332 Fundamentals of TV Production and Direction (3) OR SPH 340 Broadcast Performance Techniques (3)

### Dramatic Arts Minor (20 semester hours)

	<b>Semester Hours</b>
<b>Required Courses:</b>	
*SPH 150 Introduction to Theatre .....	3
SPH 152 Introduction to Technical Theatre ....	3
SPH 155 Play Production .....	3
SPH 158 Fundamentals of Acting .....	3
SPH 355 Play Direction .....	3
SPH 450 History of the Theatre to 1642 OR	
SPH 451 History of Theatre: 1642 to Present .	3
SPH 167 Theatre Practice .....	1
Electives (all to be taken in intermediate or advanced courses in Theatre Arts OR in other departmental areas as stipulated under the major above) .....	1-4

\*SPH 150 Introduction to the Theatre may be bypassed by exam or interview for no credit.

### Minor in Musical Theatre (24 semester hours)

Adviser Chairman, **Kenneth Stevens**  
 (487-1153)

	<b>Semester Hours</b>
<b>Required Courses:</b> .....	6
All students selecting this minor are required to take four semesters of Applied Music-Voice for a total of four hours, and two semesters of Ensemble Performance voice courses for a total of two hours.	
Applied Music-Voice .....	4
Ensemble Performance .....	2
<b>Selected Courses:</b> .....	18
In addition to the six hours of required voice training students are to select 18 additional hours from the following groups to complete the 24 hour minor.	

#### Dramatic Arts (Eight semester hours)

SPH 155 Play Production .....	3
SPH 258 Mime/Pantomime & Mask .....	3
SPH 457 Advanced Acting Lab .....	1
SPH 461 Problems in Acting .....	2
SPH 462 Problems in Directing .....	2

#### Dance (Four semester hours)

PED 155 Jazz I .....	1
PED 159 Tap Dancing .....	1
PED 160 Ballet .....	1
PED 161 Modern Dance .....	1
PED 255 Jazz .....	1
PED 161 Intermediate Modern Dance .....	1

#### Music (Six semester hours)

MUS 101 Music Theory .....	4
MUS 104 Elements of Music .....	2
MUS 207 Class Piano .....	2
MUS 305 Keyboard Skills .....	2
MUS 326 Conducting .....	2

**Total Hours** ..... 24

### Minor in Drama for the Young

Adviser Chairperson, **Virginia Koste**  
 (487-0031)

The undergraduate minor in Drama for the Young provides a strong base which includes Drama and Play in Human Experience, Oral Interpretation of Children's Literature, Improvisation, and Theatre for Children. At the same time, flexibility is ensured through freedom in choosing from a wide range of electives.

EMU's program in Drama 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 communications. The minor is useful in conjunction with many other minors and majors, including 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, speech and dramatic arts.

Drama for the Young is an unrestricted minor, used on non-teaching as well as on teaching programs, for both elementary and secondary students.

**Drama for the Young Minor (20 semester hours)**

	<b>Semester Hours</b>
Required courses: .....	14-15
SPH 121 or 124 Fundamentals of Speech .....	2-3
SPH 222 Drama and Play in Human Experience .....	3
SPH 322 Theatre for Children .....	3
SPH 323 Improvisation .....	3
SPH 324 Oral Interpretation of Children's Literature .....	3
Electives from the following: .....	5-6
SPH 429 History and Theory of Developmental Drama/Theatre .....	3
SPH 504 Oral Language and Literature with the Young .....	2
SPH 565 Studies in Drama/Theatre (for seniors with permission) .....	2
SPH 168, 268, 368, 468 Interpretation .....	1
SPH 377, 378, 379 Special Topics .....	1-2-3
SPH 477, 478, 479 Special Topics .....	1-2-3
SPH 590, 591, 592 Special Topics .....	1-2-3
SPH 497, 498, 499 Independent Study in Drama for the Young .....	1-2-3
ENG 207 Introduction to Children's Literature or any course in dramatic literature .....	3
OR any courses in the Department of Communication and Theatre Arts	

**ARTS MANAGEMENT CURRICULUM**

(Non-Teaching)

**Bachelor of Science Degree**

Adviser Chairman, **Kenneth Stevens**  
(487-1153)

Communication and Theatre Arts Department

The program is specifically designed for those who have a passion for the arts and whose talent is in the field of administration and/or promotion. The arts management curriculum exists to provide career training and practical experience for these people.

The arts manager not only must develop a variety of managing skills but must also maintain a high degree of sensitivity to aesthetics. Students are provided with 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 arts institution.

The student also develops skills in accounting, advertising, personnel management, labor relations, and various other areas of business through a program of study in management and marketing. This combination of skill and experience in the arts and in business enables the student to pursue a career in arts management or to enter any of the arts management graduate programs offered throughout the country.

Since the program began in 1974, students have worked as interns in several departments in the university. Off-campus internships have included positions at the Cherry County Playhouse in Traverse City, the Attic Theatre in Detroit, the Boarshead Theatre in Lansing, the Michigan Arts and Crafts Guild in Ann Arbor, the Downriver Arts Council, the Star Theatre of Flint, and the Greenfield Village and Henry Ford Museum in Dearborn.

Among the positions held by graduates since 1976 are: Director of Communication for the Creative Music Foundation, Woodstock, New York; Director of the Lawton, Oklahoma Arts Council; Manager of the Palisades Theatre in Washington, D.C.; Box Office Treasurer at the Detroit Institute of Arts; and Director of the Union Gallery, Ann Arbor.

The arts management program is involved in training people for a relatively new and rapidly changing field. It is to the student's advantage to maintain regular contact with an advisor during the entire course of the arts management program. In order to avoid unnecessary difficulties before and after completion of the arts management program, be sure to keep abreast of the latest changes in arts management. Arts institutions vary in their personnel needs.

Eastern Michigan University's arts management curriculum is divided into four (4) sections - the basic studies, arts management major, a management or marketing minor, and two (2) internships.

**Major**

The arts management major, which is acceptable as a major only on this curriculum, consists of the following requirements specified later in the course listing:

**Basic Studies:**

See basic studies requirements in catalog Minimum 40 hours

Suggested electives in basic studies are:

- Economics 102
- Philosophical Bases of Contemporary Art
- Communication in Negotiations
- State and Local Government
- Computers for the Non-Specialist

**Arts Management Major:\***

32-36 hours

Arts Fundamentals	
Art - Art History Survey 1 and 2 .....	6
Elective .....	2-3
Dance - Modern Dance .....	1
Academic Dance elective .....	2-3
Drama - Play Production .....	3
Introduction to Theatre .....	3
Elective .....	3-3
Music - Music Appreciation .....	2
Elective .....	2-3
Media and Theatre Management - Broadcast News .....	3
Journalism .....	3
Theatre Management .....	2
Suggested electives in arts management:	
Graphic Communication IED 121	
History of Dance	
Beginning Acting	
Technical Theatre	

Each arts management major will, after approval, work part-time for one semester as a member of the management staff of some approved on-campus arts institution (e.g., Still Gallery, EMU Dancers, etc.).

**Minor**

**Minor in Either Management or Marketing:** 21 hours  
(See management or marketing section)

**Internship:** .....

2-4

The student must be at the junior or senior level with a minimum overall grade point of 2.5 in the arts management curriculum. There are two required internships for this major. One is a one semester on-campus internship and the other is a one semester practicum with an approved off-campus arts institution.

Application procedures and minimum requirements for credit should be obtained from the curriculum advisor no later than the first semester of the junior year.

**Remaining to Complete the Hours Required for Graduation:** .....

23-29 hours

These hours can be applied to earning a second major in one of the arts or business areas. For most students, this option is strongly recommended.

\*These courses constitute the arts management major, a major acceptable on the arts management curriculum only.



## ECONOMICS

**Department Head:** Young-Iob Chung  
**Professors:** Young-Iob Chung, Donald W. Pearson  
**Associate Professors:** John E. Anderson, James R. Gibbons, Raouf S. Hanna, Mary F. McCarthy  
**Assistant Professors:** David B. Crary, John A. Edgren, Steven C. Hayworth, Mark E. Meitzen, Kemper Moreland, Harold E. Simmons, Michael G. Vogt, Bill M. Woodland.

The Economics Department offers a major with the following specialization areas: business economics, economics of finance, labor economics, governmental economics, comparative economic systems, and theoretical and quantitative economics. As well as the economics major and minor programs, the department administers the interdisciplinary major and minor in labor studies (details given on page 91). When completing either of these programs students choose the Bachelor of Arts or Bachelor of Science degrees.

Students may also now choose to major in Economics on the Bachelor of Business Administration degree. (See pages 90 and 176.)

The Economics Department also participates in the programs in Area Studies and in the minor programs in Conservation and Resource Use and in Women's Studies.

## GRADUATE STUDY

The Economics Department offers graduate work leading to three Master of Arts degree programs, e.g., Economics; Applied Economics; Development, Trade and Planning. For descriptions of graduate courses and programs in Economics, please consult the Graduate Catalog. For additional information contact the director of the Graduate Program in Economics.

## COURSES

New courses are identified with a bullet •.

**ECO 200 The American Economy.** **Three sem hours**  
 A one semester survey of the basic principles of economics for those students who seek a basic knowledge of the functioning of the present-day American economy. *Not open to students with ECO 201 or ECO 202 Principles of Economics.*

**ECO 201 Principles of Economics I.** **Three sem hours**  
 The first half of an introduction to basic principles of economics. Emphasis is on macroeconomic concepts of national income, fiscal and monetary policy and problems of unemployment, inflation and economic growth.

**ECO 202 Principles of Economics II.** **Three sem hours**  
 The second half of an introduction to basic principles of economics. Emphasis is on microeconomic concepts of demand and supply and problems relating to prices and resource allocation.  
*Prereq: ECO 201 Principles of Economics I or equivalent.*

**ECO 300 Contemporary Economic Issues.** **Three sem hours**  
 An economic analysis of a contemporary economic problem. Each semester a single topic will be covered, and the topic may change each semester as the interest and/or problem changes. 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.**

**Three sem hours**

A study of national income analysis, employment theory and stabilization policies.

*Prereq: ECO 201 and ECO 202 Principles of Economics or equivalent.*

**ECO 302 Intermediate Microeconomic Analysis.**

**Three sem hours**

A study of the theory of the firm, prices and resource allocations.

*Prereq: ECO 201 and ECO 202 Principles of Economics or equivalent.*

**ECO 310 Economic Statistics.**

**Three sem hours**

An introduction to the statistical measurement and analysis of mass economic data; small samples and their use for description and inference; the statistical study of economic time series data; index construction and interpretation; and introductory regression analysis.

*Prereq: MTH 119 Mathematical Analysis for Social Sciences II or MTH 120 Calculus I.*

**ECO 320 Labor Economics.**

**Three sem hours**

A study of supply and demand factors in the labor market, collective bargaining, types and policies of labor organizations and employer organizations, recent legislation relating to labor.

*Prereq: One course in economics.*

**ECO 321 Minority Workers in the Labor Market.**

**Three sem hours**

A consideration of the special problems and unique employment situations of minority workers (Racial and Ethnic Minorities, Women, Handicapped) arising from historical and market influences, and from employer, union, and government policies. Recent and proposed legislation affecting the labor force status of minorities is also surveyed.

*Prereq: One course in economics.*

**ECO 322 American Labor Unions.**

**Three sem hours**

An examination of 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.**

**Three sem hours**

An examination of the economic aspects of labor legislation and governmental administrative rulings which affect unions and union-employer relations.

*Prereq: One course in economics.*

**ECO 324 Unionism in the Public Sector.** **Three sem hours**

An examination of the origins, goals and methods of union organization of public sector employees, with special attention directed to teachers and other public employees at state and local levels.

*Prereq: One course in economics.*

**ECO 325 Collective Bargaining.**

**Three sem hours**

An analysis of the major problems in present-day collective bargaining including the negotiation of collective agreements, the practical aspects and the economic implications.

*Prereq: One course in economics.*

**ECO 326 Consumer Economics.**

**Three sem hours**

A study of economic behavior, role and relationship of consumers in American economy. Some contemporary economic problems of consumers are examined.

*Prereq: One course in economics.*

**ECO 327 Social Insurance and Economic Security.****Three sem hours**

A study of the problem of economic insecurity and social responses to it. The course emphasizes economic analysis of the social security system of the U.S. as well as public assistance programs.

Prereq: ECO 201 and ECO 202 Principles of Economics or permission of the department.

**ECO 328 Economics of Women.****Three sem hours**

A consideration of the changing economic role of women: participants and non-participants in the labor force; labor union members and officers; consumers; unpaid household laborers; pensioners; welfare recipients; heads of households, borrowers of credit, etc. Recent and proposed legislation affecting the economic status of women.

Prereq: One course in economics or WMS 200 Introduction to Women's Studies.

**ECO 332 Urban Economics.****Three sem hours**

A study of the level, distribution, stability and growth of income and employment in urban areas, as well as 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 Principles of Economics or equivalent.

**ECO 336 Economics of Environment and Natural Resources.****Three sem hours**

A study of the application of economic concepts and analysis to problems of environment and management of natural resources.

Prereq: One course in economics.

**ECO 337 Energy Economics and Policies.****Three sem hours**

An 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: One course in economics.

**ECO 338 Land Economics.****Three sem hours**

An economic study of 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 Principles of Economics or equivalent.

**ECO 341 Money and Banking.****Three sem hours**

A study of 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 Principles of Economics or equivalent.

**ECO 350 Government Finance.****Three sem hours**

An analysis and description of the 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 three levels of government upon the level and the distribution of national income and upon the allocation of resources are examined.

Prereq: ECO 201 and ECO 202 Principles of Economics or equivalent.

**ECO 361 Corporation Finance.****Three sem hours**

An examination of the structure, financial organization, income and policy decisions of corporations.

Prereq: One course in economics.

**ECO 365 Public Utility Economics.****Three sem hours**

An analysis of the economic function and significance of public utilities and the role of public regulation.

Prereq: ECO 201 and ECO 202 Principles of Economics or equivalent.

**ECO 366 Economics of Transportation.****Three sem hours**

A survey of economic aspects of all forms of transportation, with consideration of the role of government and the socio-economic effects of the transportation sector on the rest of the economy.

Prereq: ECO 201 and ECO 202 Principles of Economics or equivalent.

**ECO 370 Comparative Economic Systems.****Three sem hours**

A study of alternative approaches to organizing economic activity, with emphasis on their 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.****Three sem hours**

A study of the economic development of the United States.

Prereq: One course in economics.

**ECO 385 Economic Development.****Three sem hours**

A study of the causes, the consequences and the possible solutions of economic problems facing the developing countries of Latin America, Africa and Asia. Special attention is given to mass poverty, food shortages, over population, unemployment and unequal income distribution.

Prereq: One course in economics.

**ECO 386 Technology and Economic Growth.****Three sem hours**

A study of the nature of technology and its importance for contemporary economic growth. The course also examines technological change and the effects of that change upon society and the individual.

Prereq: One course in economics.

**ECO 387 Cooperative Education in Economics or Labor Studies.****Three sem hours**

Four to six months of full-time employment at an individual employer chosen to provide practical experience in the student's major field. The Cooperative 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.

Prereq: Junior standing Major in Economics or Labor Studies. Admittance to program by application only. Departmental approval. Graded Credit/No Credit.

**ECO 400 Problems in Economic Theory.****Two sem hours**

A thorough study of selected problems in economic theory.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis.

**ECO 401 Computer Applications in Macroeconomics.****Three sem hours**

Tests of various hypotheses about 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 Intermediate Macroeconomic Analysis and ECO 310 Economic Statistics, or equivalent.

**ECO 405 Economic Analysis for Business.****Three sem hours**

A study of analytical tools and methods of economic theory that are useful in business management, focusing on their application in the areas of production, cost, pricing and investment, as well as demand estimation and economic forecasting.

Prereq: ECO 302 Intermediate Microeconomic Analysis, and ECO 301 Intermediate Macroeconomic Analysis or ECO 445 Economic Fluctuations and Forecasting, or equivalent.

**ECO 406 History of Economic Thought. Three sem hours**

The course offers a broad introductory survey of 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 Principles of Economics.

**ECO 415 Introduction to Econometrics. Three sem hours**

Introduction to the mathematical formulation of economic theories, and the use of statistical procedures to measure the theoretical relationships and to verify or reject the theories. It is primarily concerned with quantitative predictions, measurements, and statistical test of the predictions.

Prereq: ECO 310 Economic Statistics or equivalent.

**ECO 420 Comparative Labor Unionism. Three sem hours**

A comparative survey of labor union movements in various parts of the world. Attention is given both to differences in theories behind the movement to organize the working class, and to differences in the ways the union movements have actually evolved, giving ideological as well as functional perspective.

Prereq: ECO 201 and ECO 202 Principles of Economics, or permission of the department.

**ECO 422 Union Leadership. Three sem hours**

Field experience in union administration in cooperation with metropolitan area local and international unions; emphasis is upon day-to-day operation of union institutions. Students are assigned to specific unions for an average of ten hours weekly, meeting with the instructor periodically for analysis and discussion.

Prereq: ECO 320 Labor Economics and senior standing. Open only to students in Labor Studies major or minor.

**ECO 424 Seminar in Labor Issues. Three sem hours**

Application of labor economics theory to current and prospective issues of significance to unions; consideration of future trends in unionism and collective bargaining.

Prereq: ECO 320 Labor Economics and senior standing.

**ECO 436 Health Economics. Three sem hours**

Survey of the production, distribution, supply, and utilization of health care resources, especially in the United States. Relevant tools of economic analysis and empirical studies focus on allocation of resources to the health care sector.

Prereq: ECO 201 and ECO 202 Principles of Economics or equivalent.

**ECO 445 Economic Fluctuations and Forecasting. Three sem hours**

An analysis of the nature and causes of business fluctuations. Consideration is given also to problems of forecasting business cycles, international aspects of the business cycle and governmental stabilization policies.

Prereq: ECO 201 and ECO 202 Principles of Economics or equivalent.

**ECO 455 Economics of Public Expenditures and Policy Analysis. Three sem hours**

Application of the tools of microeconomics in analyzing economic efficiency and resource allocation in the public sector. It includes studies of how programs and policies can be evaluated through budgeting and systems analysis, and application of these tools to current problems.

Prereq: ECO 201 and ECO 202 Principles of Economics.

**ECO 460 Industrial Organization. Three sem hours**

A study of monopoly, competition, mergers, concentration, and antitrust and other public policies affecting private enterprise in the United States.

Prereq: ECO 201 and ECO 202 Principles of Economics.

**ECO 471 Case Studies of Developing Economies. Three sem hours**

A survey of economic problems in selected developing economies. Emphasis is placed on case studies of countries or regions among the less developed economies. Cases may change from year to year.

Prereq: ECO 201 and ECO 202 Principles of Economics or equivalent.

**ECO 472 The Soviet Economy. Three sem hours**

A comprehensive survey of the Soviet economy including institutional structure, ideological background, economic growth and development, the problems of central planning, and current prospects for reform.

Prereq: ECO 201 and ECO 202 Principles of Economics or permission of the department.

**ECO 480 International Economics. Three sem hours**

A description and analysis of the theory and special 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 ECO 202 Principles of Economics or equivalent.

**ECO 487 Cooperative Education in Economics or Labor Studies. Three sem hours**

Four to six months of full-time employment at an individual employer chosen to provide practical experience in the student's major field. The Cooperative 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.

Prereq: ECO 387 Cooperative Education in Economics or Labor Studies. Admittance to program by application only. Departmental approval. Graded Credit/No Credit.

**ECO 491 Research Seminar in Economics. Three sem hours**

An examination of 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 Studies. One, two and three sem hours**

Advanced study on an individual research basis in areas not covered in formal course work. Restricted to economics majors and minors.

Prereq: Twelve hours of economics, and permission of the department.

## ECONOMICS

Adviser Chairperson, **Young-Iob Chung**  
(487-3395)

The study of economics can contribute to the liberal education of all students; it also prepares them for careers in business and government, whether as professional economists or in other positions. It provides background for graduate study in economics, business, public administration, law, and related areas.

In order to serve the particular interests and needs of its students, the Economics Department offers the economics major with different areas of concentration. The department also offers a minor in economics.

### Bachelor of Arts or Bachelor of Science Degree

#### Economics Major (30 semester hours)

	Semester Hours
Required courses:	
ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
ECO 301 Intermediate Macroeconomic Analysis .....	3
ECO 302 Intermediate Microeconomic Analysis .....	3
ECO 310 Economic Statistics or ECO 415 Introduction to Econometrics .....	3
Electives in economics .....	15

Although any 15 credit hours of electives in economics will complete the requirements for the major, the department has developed six recommended course patterns that provide planned concentrations for the career areas outlined below.

### Economics Bachelor of Business Administration Degree

The Bachelor of Business Administration degree program in economics 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 at Eastern Michigan University by permitting them to major in economics while taking the same foundation courses required of all business students. This is a joint and cooperative program of the College of Business and the Economics Department.

Students enrolling in this program are required to follow the business administration curriculum which has its own requirements for Groups I, II, III, VI, VII and for Humanities and free electives (see page 176).

The students must also complete an academic major of 24 semester hours in economics.

#### Major (24 semester hours) Non-Teaching

	Semester Hours
Required courses:	
ECO 301 Intermediate Macroeconomic Analysis .....	3
ECO 302 Intermediate Microeconomic Analysis .....	3
ECO 310 Economic Statistics or ECO 415 Introduction to Econometrics .....	3
Electives in economics (300 level or above) .....	15

Students selecting this economics major may also meet the curriculum requirement of a statistics class by taking ORI 265 Business Statistics I. If students select ORI 265, they must not take ECO 310, but they still must take the required 24 credit hours in economics courses. It is recommended that students take ECO 415.

Although any 15 credit hours of 300 level or above electives in economics complete the requirements for the major, the department has developed six recommended course patterns that provide planned concentrations for the career areas outlined below.

Students enrolled in this program are encouraged to include at least one 400-level course offered in the College of Business as a free elective in completing degree requirements.

### Concentration Areas

#### Business Economics

Students can specialize in the study of economics as it relates to private enterprise, which includes an analysis of business from a broad social perspective, and may lead directly to employment in business. Students selecting this concentration normally take additional courses or a minor in management, finance, accounting, marketing, or operations research. Recommended elective courses:

ECO 320 Labor Economics .....	3
ECO 326 Consumer Economics .....	3
ECO 341 Money and Banking .....	3
ECO 361 Corporation Finance .....	3
ECO 445 Economic Fluctuations and Forecasting .....	3
ECO 460 Industrial Organization .....	3

#### Economics of Finance

A concentration in the financial aspects of private or public enterprise should enable students to understand the operations of financial institutions and to analyze and interpret financial data. It may lead to employment in banks, insurance companies, or other financial institutions or in the finance or credit departments of industries or private firms. Recommended elective courses:

ECO 326 Consumer Economics .....	3
ECO 341 Money and Banking .....	3
ECO 350 Government Finance .....	3
ECO 361 Corporation Finance .....	3
ECO 445 Economic Fluctuations and Forecasting .....	3
ECO 480 International Economics .....	3

#### Labor Economics

This concentration is designed for those who plan to specialize in the economic aspects of human resources and labor relations. It is of interest to those who expect to be employed in occupational counselling, labor and industrial relations, and government service. The elective courses should be selected from the following:

ECO 320 Labor Economics .....	3
ECO 321 Minority Workers and Labor Market ..	3
ECO 322 American Labor Unions .....	3
ECO 323 Labor and Government .....	3
ECO 324 Unionism in the Public Sector .....	3
ECO 325 Collective Bargaining .....	3
ECO 328 Economics of Women .....	3
ECO 420 Comparative Labor Unionism .....	3
ECO 422 Union Leadership .....	3
ECO 424 Seminar in Labor Issues .....	3

#### Governmental Economics

Planned for students who desire to learn about the economic aspects of all levels of government and their relation to the private sector, this program concentration may lead to employment opportunities in government, in such areas as budget analysis, tax policy, collection and dissemination of governmental statistics, and positions with state and federal regulatory agencies such as public service commissions.

# LABOR STUDIES

(Non-Teaching)

Director: **Donald W. Pearson**  
(487-0008)

The Labor Studies Program is administered through the Economics Department. It offers students an interdisciplinary major and minor in labor relations courses to meet the needs of those attracted to careers in the field of labor and industrial relations or in graduate programs in labor relations. The program should also interest older and/or non-traditional students returning to the University while continuing full-time employment. For students intending to pursue graduate studies, a minor in the intended graduate field is recommended.

### Major (30 semester hours)

#### Required courses:

	Semester Hours
ECO 310 Economic Statistics .....	3
ACC 240 Principles of Accounting .....	3
ECO 320 Labor Economics .....	3
ECO 424 Seminar in Labor Issues .....	3
Electives in Labor Studies below ..	18

### Minor (20 semester hours)

Any 20 hours from the list of courses in the Labor Studies program.

### Labor Studies Courses

ECO 310 Economic Statistics .....	3
ECO 320 Labor Economics .....	3
ECO 321 Minority Workers in the Labor Market ..	3
ECO 322 American Labor Unions ..	3
ECO 323 Labor and Government .....	3
ECO 324 Unionism in the Public Sector .....	3
ECO 325 Collective Bargaining .....	3
ECO 328 Economics of Women .....	3
ECO 420 Comparative Labor Unionism .....	3
ECO 422 Union Leadership .....	3
ECO 424 Seminar in Labor Issues .....	3
ACC 240 Principles of Accounting .....	3
SOC 307 Industrial Sociology .....	3
PLS 335 Labor in American Politics .....	3
PSY 351 Industrial Psychology .....	3
SPH 352 Communication in Negotiations .....	3
SPH 353 Organizational Communication in Unions .....	3
HIS 360 United States Labor History .....	3
MGT 384 Personnel Administration .....	3
ADS 403 Labor Law .....	3

### Recommended electives:

ECO 323 Labor and Government .....	3
ECO 332 Urban Economics .....	3
ECO 336 Economics of Environment and Natural Resources .....	3
ECO 337 Energy Economics and Policies .....	3
ECO 338 Land Economics .....	3
ECO 350 Government Finance .....	3
ECO 365 Public Utility Economics .....	3
ECO 366 Economics of Transportation .....	3
ECO 455 Economics of Public Expenditures and Policy Analysis .....	3

### Comparative Economic Systems

This concentration is designed for those who wish to study the various economic systems throughout the world. Students who intend to work for international organizations or to enter foreign service or those in an area studies program will find this concentration of special value. The recommended courses:

ECO 370 Comparative Economic Systems .....	3
ECO 375 Economic History of the U.S. ....	3
ECO 385 Economic Development .....	3
ECO 460 Industrial Organization .....	3
ECO 471 Case Studies of Developing Economies ..	3
ECO 472 The Soviet Economy .....	3

### Theoretical and Quantitative Economics

Students planning graduate study in economics or a career as a professional economist should concentrate in theoretical and quantitative economics and are encouraged to minor in mathematics, including calculus through 223 and MTH 370, 418, and 471 in their studies. The recommended courses in economics:

ECO 400 Problems in Economic Theory .....	2
ECO 406 History of Economic Thought .....	3
ECO 415 Introduction to Econometrics .....	3
ECO 445 Economic Fluctuations and Forecasting ..	3
ECO 480 International Economics .....	3
ECO 491 Research Seminar in Economics .....	3

### Minor (20 semester hours)

#### Semester Hours

#### Required courses:

ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
Electives in economics .....	14

## ENGLISH LANGUAGE AND LITERATURE

Department Head: Judith Johnson

Professors: Naomi Madgett Andrews, Paul Bruss, Walter Brylowski, Franklin Case, Gilbert Cross, Jeffery Duncan, Milton Foster, David Geherin, Ernest Gohn, Arthur Harris, Eugene Haun, Alethea Helbig, Helen Hill, Robert Holkeboer, Jay Jernigan, Judith Johnson, Martin Kornbluth, Robert Kraft, Paul McGlynn, Alfred Nelson, Agnes Perkins, George Perkins, Paul Pillsbury, James Reynolds, Frank Ross, Ivan Schreiber, William Shuter, Lawrence Smith, Curtis Stadtfeld, Patrick White.

Associate Professors: James Angle, Nadean Bishop, Bernard Decker, James Devers, Sheila Ingersoll, Betty Ingram, Eunice Howard Jordan, Meredith Klaus, Russell Larson, Donald Lawniczak, Ronald Mohl, Glenn Rauhley, Arie Staal, Marshall Tynn.

Assistant Professors: Thomas Allen, William Hauer, Thomas Hennings, Mary MacDonald, Frank McHugh, Margaret Webb, Eleanor Wright, Richard Wright.

### PROGRAMS

The programs offered by the Department of English Language and Literature are described in the alphabetical list of programs found earlier in this catalog. These programs, consisting of six majors and seven minors, are designed to increase a student's understanding and skill in literature, the English language, and composition. This goal is a desirable end in itself, for all users of English will find their lives are enriched by a better understanding of one or more of these three facets of English. These programs are also valuable, however, as partial preparation for many different careers, because skill in English is needed in any line of work or profession where the abilities to read carefully, write clearly, and know the possibilities of the English language are important.

The six majors are:

- Major in Literature
- Group Major in English and American Literature and Language
- Major in English Linguistics
- Major in English Language
- Interdisciplinary Major in Literature, Library Science, and Drama for the Young
- Group Major in Literature, Language, Speech and Dramatic Arts

The seven minors are:

- Minor in English Language and Literature
- Minor in Literature
- Minor in Children's Literature
- Minor in English Linguistics
- Minor in English Language
- Minor in Writing
- Minor in Journalism

### ENGLISH COMPOSITION POLICIES

Students whose SAT verbal scores are below 400 or whose ACT English scores are below 17 must, as space permits, take English 120 in their first semester at Eastern as a prerequisite for ENG 121 English Composition, which they must take in their second semester.

All students who score below 550 on the verbal part of the SAT or below 25 on the English section of the ACT and who earned less than a 2.5 high school grade point average are required to take ENG 121 English Composition in their first year at Eastern Michigan University. Students **MAY NOT DROP** English Composition ENG 120 or ENG 121.

Students in the PASS program are usually placed in ENG 118 English Fundamentals. Those students completing ENG 118 English Fundamentals satisfactorily must take ENG 119 Basic Composition the next semester. Students **MAY NOT DROP** English Composition 118 or 119.

Students who have scores higher than those listed above must take either ENG 121 English Composition or a basic language course in a foreign language (121, 122, 221 or 222 French, German or Spanish), according to the norms appearing on page 100.

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 grade point average was 2.5 or above may choose to enroll in special sections of 121 English Composition for superior students.

Students who earned credit in English composition under the Advanced Placement Program (see page 24) are not required to take 121 English Composition.

### BASIC STUDIES LITERATURE POLICIES

When fulfilling Basic Studies Literature requirements (see page 32) with courses from the English department, students usually will take two courses from Literature 100, 101, 102, 103, 210, 251, or 260. Some advanced literature courses may with written departmental permission be elected for this requirement, but LIT 201 Science Fiction and Fantasy, LIT 204 American Indian Myths, Tales, and Legends, or LIT 207 Children's Literature may **not** be applied.

### GRADUATE STUDY

The English Language and Literature Department offers graduate work leading to the master's degree in English. For descriptions of graduate courses and programs in the English Language and Literature Department, please consult the Graduate Catalog.

### COURSES

New courses are identified with a bullet •.

#### Composition and English Language

**ENG 118 English Fundamentals.** Five sem hours  
A course in the fundamentals of English composition – the conventions of punctuation, diction, syntax and paragraphing leading to the writing of short expository essays. Required of PASS students whose SAT verbal scores are below 400 or whose ACT English scores are below 17, as space permits. PASS students must take English 118 during their first semester at Eastern as a prerequisite for ENG 119 Basic Composition. It does not apply on the Basic Studies requirements. It contrasts with English 120 in that it requires students to spend more time working on fundamentals. Students who take ENG 118 will not take ENG 120.

**ENG 119 Basic Composition.** Five sem hours  
The fundamental skills of reading, reasoning and writing, with emphasis on the reading and analysis of prose selections and on basic writing matters, such as thesis, organization, support and development, paragraphing, sentence structure, word choice, punctuation and documentation. Frequent papers and conferences. It contrasts with 121 English Composition in that it requires students to spend more time working on fundamentals. Students who take ENG 119 will not take ENG 121.

**ENG 120 English Composition Laboratory.** Three sem hours  
A laboratory course in the element of English composition – the conventions of punctuation, diction, syntax and paragraphing, leading to the writing of short expository essays. 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 English 120 during their first semester at Eastern as a prerequisite for 121 English Composition. English 120 does not apply on the Basic Studies requirements.

**ENG 121 English Composition.** Three sem hours  
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 125 Specialized Writing for International Students.** Three sem hours  
An elective course for students whose native language is not English, in the fundamental skills of writing and revising essay exams, reports, proposals, and resource papers. Frequent papers and conferences.

**ENG 215 Journalism.** Three sem hours  
An introduction to the news media with a particular study of the role of the press in American democracy. Analysis of the content of the media and practice in the fundamentals of writing for mass audiences.  
Prereq: Sophomore standing.

**ENG 216 History of American Journalism.** Three sem hours  
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.

**ENG 225 Intermediate English Composition.** Three sem hours  
A course for students, freshmen through seniors, who desire to study further the fundamentals of effective writing. Emphasis on writing in the student's own field of study.  
Prereq: ENG 121 English Composition.

**ENG 301 An Introduction to the English Language.** Three sem hours  
A survey of representative areas of language study: phonetic and phonemic theory, morphology, the writing systems, the spelling conventions, dictionaries, American regional and social dialects, and the English vocabulary.  
Prereq: Sophomore standing.

**ENG 302 Modern English Syntax.** Three sem hours  
An introduction to the syntax of modern English: traditional grammar will be reviewed, and descriptive and transformational grammar will be studied.  
Prereq: Sophomore standing.

**ENG 306 Feature, Interpretive and Editorial Writing.** Three sem hours  
Writing of feature and interpretive articles and editorials designed for newspapers or magazines. Emphasis on research, interviewing and logical presentation of informative material. Writing assignments and analysis of writing in the mass media.  
Prereq: ENG 215 Journalism.

**ENG 307 Copy Editing.** Three sem hours  
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: ENG 215 Journalism and ENG 306 Feature, Interpretive and Editorial Writing.

**ENG 310 Contemporary Problems in Journalism.** Three sem hours  
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: Sophomore standing.

• **ENG 311 Editing Procedures.** Three sem hours  
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: ENG 215 Journalism.

• **ENG 314 Writing for Public Relations.** Three sem hours  
A survey of written communication directed toward influencing public opinion; the study of writing techniques used in presenting a project or product and in assessing public response.  
Prereq: ENG 215 Journalism.

**ENG 320 Introduction to Linguistic Science.** Three sem hours  
An introduction to linguistic theory and analytical procedures. Students will apply theoretical principles to problems of phonological and syntactic analysis in languages other than English.  
Prereq: Junior standing.

**ENG 321 The History of the English Language.** Three sem hours  
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: Sophomore standing.

**ENG 325 Expository Writing.** Three sem hours  
The analysis and writing of various types of essays with emphasis on improvement of style.  
Prereq: Sophomore standing.

**ENG 335 Imaginative Writing.** Three sem hours  
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. This course may be repeated for additional credit.  
Prereq: Sophomore standing.

**ENG 350 Critical Evaluation of Children's Literature.** Three sem hours  
A course in the practical criticism of children's literature in which students read some of the important works in the field, both prose and poetry. The course is designed to help students develop both critical judgment and a clear prose style. Applies toward minor in children's literature only, but may be taken as a free elective.  
Prereq: ENG 207 Introduction to Children's Literature or equivalent.

• **ENG 387 Cooperative Education in English.**

**Three sem hours**

Employment for pay in a business or industry chosen to provide practical experience in the use of English skills. Work experiences are generally alternated with full time attendance at the University. Various written reports are required. For further information see Cooperative Education section under General Information in this bulletin.

Prereq: Junior standing. Admittance by application only.

**ENG 422 Writer's Workshop.**

**Three sem hours**

A seminar workshop for the student who wants more writing experience. The class schedule will describe each particular workshop. This course may be repeated for additional credit.

Prereq: ENG 325 Expository Writing or ENG 335 Imaginative Writing or permission of the department.

**ENG 424 Technical Writing.**

**Three sem hours**

An advanced workshop which prepares students to communicate, particularly to write, on the job. An oral report is included.

Prereq: Junior standing.

**ENG 425 Advanced English Syntax.**

**Three sem hours**

An advanced course in syntactic analysis exploring recent research in transformation theory, semantic feature analysis, case grammar and symbolic logic.

Prereq: ENG 302 Modern English Syntax.

**ENG 426 Topics in Linguistics.**

**Three sem hours**

Advanced study in specific areas of linguistics for which the department does not regularly offer a course. The area to be studied will vary and will be determined by the field of specialization of the staff members and by student interest. This course may be taken more than once, providing the topics are different.

Prereq: One other linguistic course.

• **ENG 487 Cooperative Education in English.**

**Three sem hours**

Employment for pay in a business or industry chosen to provide practical experience in the use of English skills. Work experiences are generally alternated with full time attendance at the University. Various written reports are required. For further information see Cooperative Education section under General Information in this bulletin.

Prereq: Senior standing. Admittance by application only.

## Literature

**LIT 100 The Reading of Literature.**

**Three sem hours**

An introduction to the techniques of critical reading with equal emphasis on prose fiction, poetry and drama. The goal of the course is to develop a fundamental understanding and enjoyment of reading.

**LIT 101 The Reading of Literature: Fiction.**

**Three sem hours**

A reading and critical analysis of prose fiction. The course aims to deepen the student's understanding and enjoyment of prose fiction.

**LIT 102 The Reading of Literature: Poetry.**

**Three sem hours**

A reading and critical analysis of poetry. The course aims to deepen the student's understanding and enjoyment of poetry.

**LIT 103 The Reading of Literature: Drama.**

**Three sem hours**

A reading and critical analysis of drama. The course aims to deepen the student's understanding and enjoyment of drama.

• **LIT 106 Rome and America.**

(See General Humanities Courses, page 130).

• **LIT 107 Society in Crisis: 1848 and 1968.**

(See General Humanities Courses, page 130).

• **LIT 122 American Studies: Success and the Pursuit of Happiness in 19th Century America.**

(See General Humanities Courses, page 130).

• **LIT 124 The Age of Wagner.**

(See General Humanities Courses, page 130).

• **LIT 126 The Age of Shakespeare.**

(See General Humanities Courses, page 130).

• **LIT 128 Russia in the Age of Tolstoy and Dostoevsky.**

(See General Humanities Courses, page 130).

• **LIT 150 Humanity and Technology.**

(See General Humanities Courses, page 130).

• **LIT 152 From the Gay Nineties to the Crash.**

(See General Humanities Courses, page 130).

• **LIT 155 Narrative in Literature and Film.**

(See General Humanities Courses, page 131).

• **LIT 181 The Legacy of Greece.**

(See General Humanities Program, page 131).

**LIT 201 Science Fiction and Fantasy. Three sem hours.**

An introduction to science fiction and fantasy as a medium for speculating on science, politics, social systems, education and the nature of being human. Authors such as Verne, Wells, Orwell, Huxley, Vonnegut, Burgess, Bradbury, Zamiatin, Bellamy, Asimov, Heinlein, Herbert and Tolkien.

Prereq: Two courses in literature.

**LIT 204 American Indian Myths, Tales and Legends.**

**Three sem hours**

A study of the myths, legends and tales of the Indians of the Western Hemisphere, emphasizing those of North America.

Prereq: Two courses in literature.

**LIT 210 Introduction to Shakespeare. Three sem hours.**

An introduction to at least five major plays by the greatest English dramatist, with emphasis upon the tragedies.

Prereq: One course in literature.

**LIT 230 Topics of Literature.**

**Three sem hours**

Study of topics in specific areas of literature for which the department does not regularly offer a course. Topics to be studied will vary and will be determined by the fields of specialization of faculty members and by student interest. This course may be taken more than once, provided the topics are different.

Prereq: One course in literature.

**LIT 245 Introduction to Film.**

**Three sem hours**

An introduction to the historical development of film as an art form, with attention to cinematography, editing, scenarios, lighting, acting and directing styles. The same as Speech and Dramatic Arts 245.

Prereq: Two courses in literature; SPH 121 or SPH 124 Fundamentals of Speech. Students cannot earn credit in both: SPH 245 and LIT 245 Introduction to Film.



**LIT 251 The Bible as Literature.** Three sem hours  
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.

**LIT 260 Afro-American Literature.** Three sem hours  
Representative American literature by black writers with emphasis upon the twentieth century. Readings in poetry, fiction, drama, autobiography and the essay.  
Prereq: One course in literature.

**LIT 300 Narrative in Literature and Film.** Three sem hours  
A study of the aesthetic parallels in narrative technique between certain prose forms (novel, novella, romance, satire) and film, as a means of enhancing verbal and visual literacy.  
Prereq: Two courses in literature. Not open to those with credit in HUM 201 Narrative in Literature and Film.

**LIT 305 Shakespeare: The Major Comedies and Histories.** Three sem hours  
A study of at least eight of the principal comedies and histories.  
Prereq: Three courses in literature.

**LIT 312 Medieval Literature.** Three sem hours  
A survey of medieval European literature in translation to explore the source and analogues of the themes, motifs, and literary techniques of early English literature.  
Prereq: Three courses in literature.

**LIT 315 The Poetry of Chaucer.** Three sem hours  
An introduction to the major works of Chaucer; a close reading of representative poetry.  
Prereq: Three courses in literature.

**LIT 316 English Literature 1500-1600.** Three sem hours  
A study of prose and poetry of the Renaissance, Thomas More and the Oxford group, the beginnings of criticism, the Italian influence, the Sonneteers and minor poets, the University Wits, Spenser.  
Prereq: Three courses in literature.

**LIT 317 English Literature 1600-1660.** Three sem hours  
A study of English literature of the later Renaissance including such authors as Donne, Jonson, Herbert, Herrick, Browne, Bacon and Milton.  
Prereq: Three courses in literature.

**LIT 318 English Literature 1660-1744.** Three sem hours  
A study of English literature from 1660 to the death of Pope; Dryden, Swift, Pope, Addison, Steele and lesser poets and prose writers.  
Prereq: Three courses in literature.

**LIT 319 English Literature 1744-1798.** Three sem hours  
A study of English literature during the second half of the 18th century; poetry, essays, letters, novels; Johnson, Boswell, Goldsmith, Gray, Collins, Cowper, Burns, Blake and the lesser writers of the period.  
Prereq: Three courses in literature.

**LIT 328 The American Novel 1798-1920.** Three sem hours  
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 courses in literature.

**LIT 330 The Eighteenth Century Novel.** Three sem hours  
The novel from Defoe through Jane Austen. Emphasis on the development of such forms as the novel of the road, the psychological novel, the Gothic novel, the philosophical novel and the novel of manners.  
Prereq: Two courses in literature.

**LIT 331 The Nineteenth Century Novel.** Three sem hours  
A critical reading of the English novel from Scott to Hardy; a study of its form and achievement, as well as its relation to other significant novels of the time.  
Prereq: Two courses in literature.

**LIT 332 The Twentieth Century American Novel.** Three sem hours  
Reading and intensive study of certain significant American novels by representative writers of our time, from Henry James to the younger contemporary novelists who portray the many faces of America.  
Prereq: Two courses in literature.

**LIT 333 The Twentieth Century British and European Novel.** Three sem hours  
A study of British and European novels significant in the thought and aesthetics of our century, by such writers as Joyce, Proust, Lawrence, Forster, Wolfe, Huxley, Kafka, Pasternak, Malraux, Camus, Silone, Murdoch, Golding, Sillitoe.  
Prereq: Two courses in literature.

**LIT 340 English Drama 1558-1642.** Three sem hours  
A comprehensive study of English drama from the accession of Queen Elizabeth in 1558 to the closing of the theatres in 1642.  
Prereq: Three courses in literature.

**LIT 341 English Drama 1660-1779.** Three sem hours  
A study of the significant plays from the restoration of Charles II to the closing years of the 18th century.  
Prereq: Three courses in literature.

**LIT 351 Folk Literature: Gods and Heroes.** Three sem hours  
A reading course in myths and ancient and medieval hero tales of Europe and the Near East with emphasis on those most frequently adapted 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.

**LIT 352 Folk Literature: Ballads and Folk Tales.** Three sem hours  
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.

**LIT 401 Modern American and British Poetry.** Three sem hours  
A study of the chief poets of England and America since 1900.  
Prereq: Three courses in literature.

**LIT 403 Modern Drama.** Three sem hours  
A study of the chief dramatists from Ibsen to the present.  
Prereq: Three courses in literature.

**LIT 404 English Literature 1798-1832.** Three sem hours  
A study of the chief writers of the English Romantic movement: Wordsworth, Coleridge, Lamb, DeQuincey, Hazlitt, Byron, Shelly, Keats.  
Prereq: Three courses in literature.

**LIT 405 English Literature 1832-1880. Three sem hours**  
A study of prose and poetry of the Victorian period with emphasis on such authors as Carlyle, Macaulay, Mill, Tennyson, Browning, Ruskin, Arnold and others.  
*Prereq: Three courses in literature.*

**LIT 408 American Literature 1608-1830. Three sem hours**  
A study of American writings of the colonial and early national periods from the beginnings to 1830, including backgrounds of religious and political controversy, the neoclassical influence and the emergence of native American literature.  
*Prereq: Three courses in literature.*

**LIT 409 American Literature 1830-1890. Three sem hours**  
A study of the chief literary movements in America from 1830 to 1890: romanticism, transcendentalism and the rise of realism, with emphasis on such authors as Poe, Hawthorne, Melville, Emerson, Thoreau, Whitman, Twain, Howells, James.  
*Prereq: Three courses in literature.*

**LIT 410 American Literature 1890 to Present. Three sem hours**  
A study of the forms of realism and naturalism in American prose, poetry and drama as expressions of the growth of American culture; the critical controversies; the contemporary attempts to create new forms of expression.  
*Prereq: Three courses in literature.*

**LIT 420 Old English Poetry. Three sem hours**  
A study of Old English prosodic conventions with a close reading of representative poems from the various types and schools of Old English Poetry.  
*Prereq: Three courses in literature.*

**LIT 430 History of Literary Criticism. Three sem hours**  
A study of major documents of literary criticism to enhance the appreciation of literature through an awareness of various criteria employed for the evaluation of literature in successive historical periods.  
*Prereq: Three courses in literature.*

**LIT 434 English Literature in Transition 1880-1914. Three sem hours**  
A study of such key figures as Meredith, Hopkins, Hardy, Pater, Yeats, Wilde, Shaw, Wells, Forster, the Edwardian poets, Conrad, Lawrence.  
*Prereq: Three courses in literature.*

**LIT 440 Literary Types. Three sem hours**  
A study of the characteristics of a particular literary genre, independent of chronology, theme, or author.  
*Prereq: Nine hours of literature courses.*

**LIT 444 Women in Literature. Three sem hours**  
(formerly 344 Women in Literature)  
A study of women and their experiences as described in literature.  
*Prereq: Two courses in literature.*

**LIT 450 Major Authors. Three sem hours**  
An intensive study of a major literary figure or a group of related authors. The particular author to be taught each semester will be announced in the schedule of Classes.  
*Prereq: Nine hours of literature courses.*

**LIT 460 Major Themes in Literature. Three sem hours**  
A study of one major theme, expressed through a variety of literary genres, conventions, periods, and authors. The particular theme to be offered each semester will be announced in the Schedule of Classes.  
*Prereq: Nine hours of literature courses.*

**LIT 497, 498, 499 Independent Studies in English. One, two and three sem hours**  
Study of topics not offered in regular curriculum, the particular topic to be defined (and credit hours set) by the teacher and student, subject to approval by the Curriculum Committee. Restricted to students taking majors or minors in the English Department.  
*Prereq: Nine hours in the appropriate major or minor.*

## Teaching of Literature

**LIT 207 Introduction to Children's Literature. Three sem hours**  
(Group I or IV)  
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 major or minor in curricula for teachers in junior and senior high school. This course does not satisfy Basic Studies Literature requirement.  
*Prereq: Sophomore standing.*

**ENG 308 High School English. Three sem hours**  
(Group IV)  
For students preparing to teach English in high school. Attention is centered upon methods of improving the teaching of composition and literature. *Does not count toward majors or minors.*  
*Prereq: Three courses in literature. Not open to students on academic probation.*

## MAJORS OFFERED IN ENGLISH

Adviser Chairman, Donald Lawniczak  
(487-0135)

### Major in Literature (30 semester hours)

	Semester Hours
<b>A. Required courses:</b>	
1. Any two of the following:	6
LIT 100 Reading of Literature	3
LIT 101 Reading of Literature: Fiction	3
LIT 102 Reading of Literature: Poetry	3
LIT 103 Reading of Literature: Drama	3
LIT 251 The Bible as Literature	3
LIT 260 Afro-American Literature	3
2. LIT 210 Introduction to Shakespeare	3
<b>B. Restricted electives: one course from each of the following three groups</b>	
1. Literary Periods:	9
LIT 312 Medieval Literature	3
LIT 316 English Literature 1500-1600	3
LIT 317 English Literature 1600-1660	3
LIT 318 English Literature 1660-1744	3
LIT 319 English Literature 1744-1798	3
LIT 404 English Literature 1798-1832	3
LIT 405 English Literature 1832-1880	3
LIT 408 American Literature 1608-1830	3
LIT 409 American Literature 1830-1890	3
LIT 410 American Literature 1890 to Present	3
LIT 434 English Literature in Transition 1880-1914	3

2. Literary Types:	
LIT 328 The American Novel 1798-1920 . . .	3
LIT 330 The Eighteenth Century Novel . . .	3
LIT 331 The Nineteenth Century Novel . . .	3
LIT 332 The Twentieth Century American Novel . . .	3
LIT 333 The Twentieth Century British and European Novel . . .	3
LIT 340 English Drama 1558-1642 . . .	3
LIT 341 English Drama 1660-1779 . . .	3
LIT 401 Modern American and British Poetry . . .	3
LIT 403 Modern Drama . . .	3
LIT 420 English Poetry . . .	3
LIT 430 History of Literary Criticism . . .	3
LIT 440 Literary Types . . .	3
3. Major Authors:	
LIT 305 Shakespeare: The Major Comedies and Histories . . .	3
LIT 315 The Poetry of Chaucer . . .	3
LIT 450 Major Authors . . .	3
C. Electives . . .	12

These electives may be chosen from any of the courses listed under restricted electives above or any of the following courses:

LIT 201 Science Fiction and Fantasy . . .	3
LIT 204 American Indian Myths, Tales and Legends . . .	3
LIT 230 Topics in Literature . . .	3
LIT 245 Introduction to Film . . .	3
LIT 251 The Bible as Literature . . .	3
LIT 260 Afro-American Literature . . .	3
LIT 300 Narrative in Literature and Film . . .	3
LIT 344 Women in Literature . . .	3
LIT 460 Major Themes in Literature . . .	3

**Group Major in Literature, Language, Speech and Dramatic Arts** (36 semester hours) for elementary teachers. See page 225.

**Group Major in English and American Literature and Language** (36 semester hours)

Adviser Chairman, **Ronald Mohl**  
(487-0138)

This major is designed primarily for students preparing to teach in junior and senior high schools. It is also available for students preparing to teach in elementary schools.

#### Semester Hours

A. Basic literature courses:	
1. Any two of the following:	
LIT 100, 101, 102, 103, 251, 260 . . .	6
2. LIT 210 Introduction to Shakespeare . . .	3
B. Basic Language Courses (any two of the following): . . .	6
ENG 301 Introduction to English Language . . .	3
ENG 302 Modern English Syntax . . .	3
ENG 320 Introduction to Linguistic Science . . .	3
ENG 321 History of the English Language . . .	3
ENG 425 Advanced English Syntax . . .	3
ENG 426 Topics in Linguistics . . .	3
C. Advanced Writing Courses (any two of the following) . . .	6
ENG 215 Journalism . . .	3
ENG 225 Intermediate English Composition . . .	3
ENG 306 Feature, Interpretive and Editorial Writing . . .	3
ENG 325 Expository Writing . . .	3
ENG 335 Imaginative Writing . . .	3
ENG 422 Writer's Workshop . . .	3
ENG 424 Technical Writing . . .	3

D. Advanced Literature Courses (one course from each of the following three groups): . . .	9
1. Literary Periods: LIT 312, 316, 317, 318, 319, 404, 405, 408, 409, 410, 434 . . .	
2. Literary Types: LIT 328, 330, 331, 332, 333, 340, 341, 401, 403, 420, 430, 440 . . .	
3. Major Authors: LIT 305, 315, 450 . . .	
E. Electives . . .	6

These electives may be chosen from any course offered by the English Department in literature, composition (including ENG 119 or ENG 121), or in English language, except the following: ENG 118, ENG 120, LIT 207, ENG 350, LIT 351, LIT 352, and ENG 308. However, LIT 207 may be counted on this major by students on an elementary curriculum.

No more than 6 hours of 100-level literature courses and 3 hours of 200-level literature courses may count toward this major.

Students desiring certification to teach English on the secondary level need to meet the professional education Group IV requirements, including ENG 308 High School English, in addition to the requirements for an English major. Courses in the teaching of reading are especially recommended for such students.

It is recommended that students anticipating graduate study in English elect ENG 321 History of the English Language.

Students wishing to concentrate in the area of English language may elect one of the following two variations of the above major:

#### Major in English Linguistics (30 semester hours)

Adviser Chairman, **Paul Pillsbury**  
(487-0148)

#### Semester Hours

A. Required Courses . . .	15
ENG 301 Introduction to the English Language . . .	
ENG 302 Modern English Syntax . . .	3
ENG 320 Introduction to Linguistic Science . . .	3
ENG 321 History of the English Language . . .	3
ENG 425 Advanced English Syntax . . .	3
B. Electives chosen from the following . . .	15
ENG 121 English Composition or . . .	3
ENG 119 Basic Composition . . .	5
LIT 210 Introduction to Shakespeare . . .	3
LIT 305 Shakespeare: The Major Comedies and Histories . . .	3
LIT 312 Medieval Literature . . .	3
LIT 315 The Poetry of Chaucer . . .	3
ANT 340 Language and Culture (Anthropology) . . .	3
PHI 381 Symbolic Logic (Philosophy) . . .	3
LIT 420 Old English Poetry . . .	3
ENG 426 Topics in Linguistics . . .	3

#### Major in English Language (30 semester hours)

Adviser Chairperson, **Judith Johnson**  
(487-0150)

#### Semester Hours

A. Required courses in advanced writing or journalism (Any three of the following courses): . . .	9
ENG 215 Journalism . . .	3
ENG 225 Intermediate English Composition . . .	3
ENG 306 Feature, Interpretive and Editorial Writing . . .	3
ENG 325 Expository Writing . . .	3
ENG 335 Imaginative Writing . . .	3

B. Required courses in linguistics (Any three of the following courses):	9
ENG 301 Introduction to the English Language	3
ENG 302 Modern English Syntax	3
ENG 320 Introduction to Linguistic Science	3
ENG 321 History of the English Language	3
ENG 425 Advanced English Syntax	3
C. Electives chosen from the following:	12
ENG 121 English Composition or	3
ENG 119 Basic Composition	5
LIT 210 Introduction to Shakespeare	3
ENG 215 Journalism	3
ENG 301 Introduction to the English Language	3
ENG 302 Modern English Syntax	3
ENG 306 Feature, Interpretive and Editorial Writing	3
ENG 307 Newspaper and Magazine Editing	3
LIT 312 Medieval Literature	3
LIT 315 The Poetry of Chaucer	3
ENG 320 Introduction to Linguistic Science	3
ENG 321 History of the English Language	3
ENG 325 Expository Writing	3
ENG 335 Imaginative Writing	3
LIT 420 Old English Poetry	3
ENG 422 Writer's Workshop	3
ENG 424 Technical Writing	3
ENG 425 Advanced English Syntax	3

**Interdisciplinary Major in Children's Literature, Library Science, and Drama for the Young (36 semester hours)**

Adviser Chairperson, **Alethea Helbig**  
(487-0138)

This major may be used on the elementary education curriculum or for the Bachelor of Science or Bachelor of Arts degrees without teacher certification. However, the major may not be used for certification on the secondary education curriculum for junior-senior high school teaching.

	Semester Hours
A. Required courses:	26-27
Any two of the following: LIT 100, LIT 101, LIT 102, LIT 103, LIT 210, LIT 251, LIT 260 Literature	6
SPH 121 or 124 Fundamentals of Speech	2-3
LIT 207 Introduction to Children's Literature	3
LIT 350 Critical Evaluation of Children's Literature	3
SPH 222 Drama and Play in Human Experience	3
SPH 323 Improvisation	3
SPH 324 Oral Interpretation of Children's Literature	3
LIT 351 or 352 Folk Literature	3
B. Electives chosen from the following:	9-10
LIT 204 American Indian Myths, Tales and Legends	3
LIT 210 Introduction to Shakespeare	3
LIT 251 Bible as Literature	3
LIT 351 Folk Literature: Gods and Heroes	3
LIT 352 Folk Literature: Ballads and Folktales	3
LIT 401 Modern American and British Poetry	3
SPH 210 Interpretative Reading	3
SPH 168, 268, 368, 468 Interpretation	3
SPH 322 Theatre for Children	3
SPH 497, 498, 499 Independent Study in Drama for the Young (only one may be taken)	3
EDM 314 Literature for Young Adults	3
EDM 406 Storytelling	3
EDM 409 History of Books and Libraries	3

## MINORS OFFERED IN ENGLISH

An additional four hours beyond the minimum 20 hours for graduation must be completed to meet North Central Association requirements (24) for teaching the following minors at the junior-senior high level. Up to four hours of composition, speech or English methods can be included in that total.

**\*Minor in English Language and Literature**  
(24 semester hours)

	Semester Hours
1. Any two of the following:	6
LIT 100, 101, 102, 103, 251, 260	
2. LIT 210 Introduction to Shakespeare	3
3. One of the following	3
LIT 301, 302, 320, 321, 425, 426	
4. One of the following:	3
LIT 215, 225, 325, 335, 306, 422, 424	
5. One of the following:	
LIT 305 Shakespeare: Major Comedies and Histories	3
LIT 312 Medieval Literature	3
LIT 315 The Poetry of Chaucer	3
LIT 316 English Literature 1500-1600	3
LIT 317 English Literature 1600-1660	3
LIT 318 English Literature 1660-1744	3
LIT 319 English Literature 1744-1798	3
LIT 328 The American Novel 1798-1920	3
LIT 330 The Eighteenth Century Novel	3
LIT 331 The Nineteenth Century Novel	3
LIT 332 The Twentieth Century American Novel	3
LIT 333 The Twentieth Century British and European Novel	3
LIT 340 English Drama 1558-1642	3
LIT 341 English Drama 1660-1779	3
LIT 401 Modern American and British Poetry	3
LIT 403 Modern Drama	3
LIT 404 English Literature 1798-1832	3
LIT 405 English Literature 1832-1880	3
LIT 408 American Literature 1608-1830	3
LIT 409 American Literature 1830-1890	3
LIT 410 American Literature 1890 to Present	3
LIT 420 Old English Poetry	3
LIT 430 History of Literary Criticism	3
LIT 434 English Literature in Transition 1880-1914	3
LIT 440 Literary Types	3
LIT 450 Major Authors	3
LIT 460 Major Themes in Literature	3
6. Elective in literature, composition, or linguistics	3
This elective may be chosen from any course offered by the English Department in literature, composition (including ENG 119 or ENG 121), or the English language, except the following: ENG 118, ENG 120, LIT 207, ENG 308, ENG 350, LIT 351, and LIT 352. However, LIT 207 may be counted on this minor by students on an elementary teaching curriculum.	

\*No more than 6 hours of 100-level literature courses and 3 hours of 200-level literature courses may count toward this minor.

**Minor in Literature (21-24 semester hours)**

	<b>Semester Hours</b>
1. Two of the following: . . . . .	6
LIT 100, LIT 101, LIT 102, LIT 103, LIT 251, LIT 260	
2. LIT 210 Introduction to Shakespeare . . . . .	3
3. One of the following: . . . . .	3
LIT 312, LIT 316, LIT 317, LIT 318, LIT 319, LIT 404, LIT 405, LIT 408, LIT 409, LIT 410, LIT 434	
4. One of the following: . . . . .	3
LIT 305, LIT 315, LIT 328, LIT 330, LIT 331, LIT 332, LIT 333, LIT 340, LIT 341, LIT 401, LIT 403, LIT 420, LIT 430, LIT 440, LIT 450, LIT 460	
5. Electives in Literature . . . . .	6-9
These literature electives may not include LIT 350, LIT 351, or LIT 352; only students on an elementary curriculum may count LIT 207 on this minor.	

**Minor in Children's Literature (21 semester hours)**

Adviser Chairman, **Agnes Perkins**  
(487-0144)

	<b>Semester Hours</b>
Required courses:	
Any two of the following:	
LIT 100, LIT 101, LIT 102, LIT 103, LIT 251, LIT 260 . . . . .	6
LIT 207 Introduction to Children's Literature . . . . .	3
LIT 350 Critical Evaluation of Children's Literature . . . . .	3
Three of the following: . . . . .	9
LIT 204, LIT 210, LIT 251, LIT 351, LIT 352	

Students seeking a concentration in English language study may select the following variations of the Minor in Language and Literature:

**Minor in English Linguistics (21-24 semester hours)**

	<b>Semester Hours</b>
A. Required courses (any two of the following courses): . . . . .	6
ENG 301 Introduction to the English Language . . . . .	3
ENG 302 Modern English Syntax . . . . .	3
ENG 320 Introduction to Linguistic Science . . . . .	3
ENG 321 History of the English Language . . . . .	3
B. Electives chosen from the following: . . . . .	15-18
ENG 121 English Composition or . . . . .	3
ENG 119 Basic Composition . . . . .	5
LIT 210 Introduction to Shakespeare . . . . .	3
ENG 301 Introduction to the English Language . . . . .	3
ENG 302 Modern English Syntax . . . . .	3
ENG 312 Medieval Literature . . . . .	3
LIT 315 The Poetry of Chaucer . . . . .	3
ENG 320 Introduction to Linguistic Science . . . . .	3
ENG 321 History of the English Language . . . . .	3
LIT 420 Old English Poetry . . . . .	3
ENG 425 Advanced English Syntax . . . . .	3
ENG 426 Topics in Linguistics . . . . .	3

**Minor in English Language (21-24 semester hours)**

	<b>Semester Hours</b>
A. Required courses in advanced writing or journalism (any two of the following courses): . . . . .	6
ENG 215 Journalism . . . . .	3
ENG 306 Feature, Interpretive and Editorial Writing . . . . .	3
ENG 325 Expository Writing . . . . .	3
ENG 335 Imaginative Writing . . . . .	3

B. Required courses in linguistics (any two of the following courses): . . . . .	6
ENG 301 Introduction to the English Language . . . . .	3
ENG 302 Modern English Syntax . . . . .	3
ENG 320 Introduction to Linguistic Science . . . . .	3
ENG 321 History of the English Language . . . . .	3
C. Electives chosen from the following: . . . . .	9-12
ENG 121 English Composition or . . . . .	3
ENG 119 Basic Composition . . . . .	5
LIT 210 Introduction to Shakespeare . . . . .	3
ENG 215 Journalism . . . . .	3
ENG 225 Intermediate English Composition . . . . .	3
ENG 301 Introduction to the English Language . . . . .	3
ENG 302 Modern English Syntax . . . . .	3
ENG 306 Feature, Interpretive and Editorial Writing . . . . .	3
ENG 307 Newspaper and Magazine Editing . . . . .	3
LIT 312 Medieval Literature . . . . .	3
ENG 320 Introduction to Linguistic Science . . . . .	3
ENG 321 History of the English Language . . . . .	3
ENG 325 Expository Writing . . . . .	3
ENG 335 Imaginative Writing . . . . .	3
ENG 422 Writer's Workshop . . . . .	3
ENG 424 Technical Writing . . . . .	3
ENG 425 Advanced English Syntax . . . . .	3

The English Department also administers the minors in Journalism and Writing described later in this list of programs of study.

**JOURNALISM**

The minor in journalism is offered by the Department of English Language and Literature. See **Curtis K. Stadtfeld**, 613M Pray-Harrold, or **Milton P. Foster**, 612A Pray-Harrold, for advice. (487-4220).

**Minor in Journalism (21-24 semester hours)**  
(A Non-Teaching minor)

	<b>Semester Hours</b>
Required courses: . . . . .	15
ENG 215 Journalism . . . . .	3
ENG 216 History of American Journalism . . . . .	3
ENG 306 Feature, Interpretive and Editorial Writing . . . . .	3
ENG 307 Newspaper and Magazine Editing . . . . .	3
ENG 310 Contemporary Problems in Journalism . . . . .	3
Electives chosen from the following: . . . . .	6-9
ENG 325 Expository Writing . . . . .	3
ENG 335 Imaginative Writing . . . . .	3
ENG 422 Writer's Workshop: Internship in Journalism . . . . .	3
SPH 140 Broadcasting and Film . . . . .	3
SPH 331 Fundamentals of Radio Production and Direction . . . . .	3
SPH 332 Fundamentals of Television Production and Direction . . . . .	3
SPH 343 Broadcast News . . . . .	3
SPH 344 Broadcast Continuity Writing . . . . .	3
IT 121 Graphic Communication . . . . .	3
MKT 369 Advertising . . . . .	3

(Prerequisites will be waived in most cases for upper level broadcast courses.)

## FOREIGN LANGUAGES AND BILINGUAL STUDIES

Department Head: John R. Hubbard

Professors: Jean S. Bidwell, William J. Cline, John R. Hubbard, Brigitte D. Muller

Associate Professors: Ana-Maria McCoy, James P. Holoka, Benjamin W. Palmer, Raymond E. Schaub, Geoffrey M. Voght

Assistant Professors: Jo Ann Aebersold, Catherine Day, J. Sanford Dugan, John C. Pisoni, Reynaldo Ruiz, Rebecca Schrader

The Department of Foreign Languages and Bilingual Studies offers a variety of traditional and innovative majors and minors in French, German and Spanish, a group minor in Bilingual-Bicultural Teacher Education leading to either elementary or secondary certification, and a group major in Language and International Trade.

Students in the Language and International Trade program with concentrations in Business French are eligible to take examinations leading to the "Diplôme Supérieur de Français des Affaires" or the "Certificat Pratique de Français Commercial et Economique" awarded by the Chamber of Commerce and Industry of Paris and recognized by the French National Ministry of Education. Students with concentrations in Business Spanish may take examinations leading to the "Diploma de Español Comercial" and the "Certificado de Español Comercial Básico" granted by the Chamber of Commerce of Madrid in cooperation with the Official School of Languages of Madrid. Students in German will be eligible to take examinations leading to certification in Business German recognized by the German-American Chamber of Commerce, the Carl Duisberg Society and the Goethe Institute. All examinations will be administered at EMU.

The department also administers a multi-level Intensive English as a Second Language Program for non-native speakers of English enrolled at EMU.

The Department also offers service courses in literature in translation and language and culture studies.

### WRITING

Adviser Chairman: Lawrence Smith  
(487-2085)

The minor in writing is offered by the Department of English Language and Literature.

#### Minor in Writing (21-24 semester hours)

	Semester Hours
A. Required Courses .....	12
ENG 121 English Composition or	
ENG 119 Basic Composition	
ENG 325 Expository Writing	
ENG 335 Imaginative Writing	
ENG 22 Writer's Workshop	
B. Electives chosen from the following: .....	9-12
ENG 215 Journalism	
ENG 225 Intermediate English Composition	
ENG 306 Feature, Interpretive and Editorial Writing	
ENG 422 Writer's Workshop (May be repeated)	
ENG 424 Technical Writing	
ENG 503 Rhetoric and Advanced Composition (with permission)	
SPH 344 Broadcast Continuity Writing	
SPH 360 Dramatic Composition	
SPH 361 Dramatic Writing	

One of the following may be counted toward this minor as an elective:

- ENG 301 An Introduction to the English Language
- ENG 302 Modern English Syntax
- ENG 321 The History of the English Language

### ENROLLMENT GUIDELINES

Students who enter the University with previous high school work in a foreign language and who wish to continue the same language in the University should enroll according to the following guidelines:

- 1) Students with two years or less of high school foreign language should enroll in a 100 level course.
- 2) Students entering with three or more years of high school foreign language should enroll in 221 and/or 233, or, with departmental approval, in a different level course.

### DEPARTMENT RESIDENCY REQUIREMENTS

Majors in a foreign language must complete at Eastern Michigan University courses numbered 443 and/or 444 and other appropriate courses on the 300 or 400 level depending upon the major pattern. See an adviser in the department for the specific course required.

Minors in a foreign language must complete at Eastern Michigan University courses at the 300 level or above. See an adviser in the department for the specific courses required by each pattern.

## COURSES

### French

New courses are identified with a bullet •.

#### FRN 111, 112 **Beginning French for Reading.**

Five sem hours each

Introductory course designed for students who want to learn to read French. Primarily practice in translation with some work on basic pronunciation.

#### FRN 121, 122 **Beginning French.**

Five sem hours each

Introductory course including practice in pronunciation, conversation, reading and composition. Students spend one and a half hours in the laboratory as part of their preparation.

#### FRN 221, 222 **Intermediate French.**

Three sem hours each

Rapid reading of large quantities of French. Materials include readings in literature, and civilization. Students who plan to continue in French should take FRN 233, 234 Elementary French Conversation concurrently with FRN 221, 222.

Prereq: FRN 122 Beginning French or the equivalent, or three years of high school French.

#### FRN 233, 234 **Elementary French Conversation.**

Three sem hours each

Students who plan to continue in French should take these courses concurrently with FRN 221, 222 Intermediate French. Students spend two half-hour periods per week in the laboratory listening and recording. For students who plan to use the language orally or for teaching purposes.

Prereq: FRN 122 Beginning French, or equivalent, or three years of high school French.

#### FRN 341, 342 **Survey of French Literature.**

Three sem hours each

This is the introductory survey course in French literature. It covers, during the two semesters, the major writers from the beginning of French literature to the present and is a prerequisite for all later courses in literature. Students must have sufficient oral comprehension to follow lectures in French.

Prereq: FRN 222 Intermediate French or departmental approval.

#### FRN 343 **French Composition.**

Three sem hours

Intended to provide a solid grounding in grammar and composition.

Prereq: FRN 234 Elementary French Conversation or departmental approval.

#### FRN 344 **French Conversation.**

Three sem hours

Additional classwork in conversation. Students also spend three half-hour periods per week in the laboratory.

Prereq: FRN 234 Elementary Conversation or departmental approval.

#### FRN 361 **French for International Trade I.**

(Formerly FRN 262)

Three sem hours

Advanced course for students with four semesters of college French or equivalent who elect the group major in Language and International Trade. Development of all language skills for use in business situations in French speaking environment. Study of French culture and civilization. Emphasis on acquisition of an active knowledge of business, financial, and economic vocabulary and terminology; on English-French and French-English translation; and on effective spoken and written expression in business context.

Prereq: FRN 222 Intermediate French or 234 Elementary French Conversation or departmental approval.

#### FRN 362 **French for International Trade II.**

(Formerly FRN 361)

Three sem hours

Advanced course for students with four semesters of college level French, required for students who elect the group major in Language and International Trade. Refinement of all language skills used in multinational business setting prepares student for language proficiency examination. Emphasis on use of proper vocabulary, terminology and nomenclature in import-export business and on French-English and English-French translation. Students majoring in Language and International Trade (French) are eligible to take the examination leading to the "Certificat pratique de Français économique et commercial" granted by the Chamber of Commerce and Industry of Paris.

Prereq: FRN 222 Intermediate French or department approval.

#### FRN 431 **Studies in French Theatre.**

Three sem hours

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 departmental permission. In French.

Prereq: FRN 341, 342 Survey of French Literature or departmental approval.

#### FRN 432 **Studies in French Poetry.**

Three sem hours

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 departmental permission. In French.

Prereq: FRN 341, 342 Survey of French Literature or departmental approval.

#### FRN 433 **Studies in French Prose.**

Three sem hours

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 departmental permission.

Prereq: FRN 341, 342 Survey of French Literature or departmental approval.

#### FRN 441, 442 **Nineteenth Century French Literature.**

Three sem hours each

A study of the chief French literary movements and representative authors of the Nineteenth Century. In French.

Prereq: FRN 341, 342 Survey of French Literature or departmental approval.

#### FRN 443 **French Syntax.**

Three sem hours

An advanced course in grammar and syntax with a large amount of drill on syntactical patterns.

Prereq: FRN 343 French Composition or departmental approval.

#### FRN 444 **Advanced French Conversation.**

Three sem hours

An advanced class in conversation. Students also spend one-half hour per lesson in the laboratory, listening to recordings and making their own. The course may be repeated for credit.

Prereq: FRN 343 French Composition and FRN 344 French Conversation or departmental approval.

#### FRN 446 **Business French I.**

Three sem hours

Study of principles and practices of business communication in French. Secretarial and administrative procedures with emphasis on the planning and writing of business letters, reports, memos, and minutes relating to different areas of business and industry. Introduction to French economy, economic geography, and business law is included.

Prereq: Departmental approval.

**FRN 447 Business French II.** Three sem hours  
Further study of business practices, business law, French economy and of the economic geography of France. In French.  
Prereq: FRN 446 Business French I or departmental approval.

**FRN 451, 452 Readings in French.** One or two sem hours  
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 departmental approval to substitute one or both of these for the regular courses.  
Prereq: FRN 341, 342 Survey of French Literature or departmental approval.

**FRN 461, 462 Twentieth Century French Literature.** Three sem hours each  
A study of the chief literary movements and representative authors of the twentieth century. In French.  
Prereq: FRN 341, 342 Survey of French Literature or departmental approval.

**FRN 471, 472 Eighteenth Century French Literature.** Three sem hours each  
A thorough study of the major authors and movements of the period of the Enlightenment in France. In French.  
Prereq: FRN 341, 342 Survey of French Literature or departmental approval.

**FRN 481 History of the French Language.** Three sem hours  
A brief historical account of the development of the language from its Latin and Vulgar Latin origins with special attention to the old French and Middle French periods.  
Prereq: FRN 343 French Composition.

**FRN 388, 488, 489 Internship.** One, two, three sem hours  
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.  
Prereq: Departmental approval.

**FRN 491, 492 Seventeenth Century French Literature.** Three sem hours each  
A study of the chief literary movements and representative authors of the Golden Age of French literature. In French.  
Prereq: FRN 341, 342 Survey of French Literature or departmental approval.

**FRN 497, 498, 499 Independent Study.** One, two, three sem hours  
Advanced study on an individual research basis in areas not covered in formal course work.  
Prereq: Departmental approval.

#### Special Topics

FRN 277, 278, 279, 377, 378, 379, 477, 478 and 479 are available for special topics.  
**FRN 277, 377, 477.** One sem hour  
**FRN 278, 378, 478.** Two sem hours  
**FRN 279, 379, 479.** Three sem hours  
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: Departmental approval.

## German

New courses are identified with a bullet •.

**GER 121, 122 Beginning German.** Five sem hours each  
Instruction includes pronunciation, aural-oral pattern practice, the fundamentals of grammar, written exercise, reading. Laboratory attendance is required.

**GER 221, 222 Intermediate German.** Three sem hours  
Rapid reading of large quantities of German prepares the student for practical use of the written language. Extensive work on vocabulary building, idiomatic construction and classroom discussion increase speaking fluency. Course materials acquaint student with the history of German literature, culture and with contemporary life. Students who plan to continue in German should take GER 233, 234 Elementary German Conversation concurrently with GER 221, 222.  
Prereq: GER 122 Beginning German or three years of high school German.

**GER 223 Scientific German.** Three sem hours  
Reading material will consist of scientific texts. For those students majoring in the sciences and for pre-medical students.  
Prereq: GER 122 Beginning German, or departmental approval.

**GER 233, 234 Elementary German Conversation.** Three sem hours each  
Students who plan to continue in German should take these courses concurrently with 221, 222 Intermediate German. There is extensive work in simple conversation and grammar review. These courses are intended for students who need oral proficiency. The course meets three times per week; class time is used for thorough grammar review and conversation. As part of their homework, students will spend two one-half hour periods per week in the laboratory.  
Prereq: GER 122 Beginning German or three years of high school German.

**GER 341, 342 Survey of German Literature.** Three sem hours each  
The course proceeds through German literary history from early Germanic times to the present, incorporating the perspectives of political, economic, social and intellectual developments as well as those of the visual arts and music. Readings, classroom discussion and short papers build the student's German proficiency. The course is taught in German.  
Prereq: GER 222 Intermediate German or departmental approval.

**GER 343 German Composition.** Three sem hours  
Writing for a variety of purposes and a systematic grammar review constitute the core of the course. Frequent written assignments, class meetings are in German.  
Prereq: GER 234 Elementary German Conversation or departmental approval.

**GER 344 German Conversation.** Three sem hours  
Builds on the foundation in speaking skills acquired in GER 233 and 234. Emphasizes vocabulary and idiom building and improvement in basic sentence structure. Readings are chosen which stimulate discussion; slides, tapes, films and other aids serve the same purpose. Individual grammar topics are reviewed as needed. Meets three times per week.  
Prereq: GER 234 Elementary German Conversation or departmental approval.



**GER 361 German for International Trade I.****Three sem hours**

Instruction in the four language skills (speaking, reading, writing and listening) develops in-depth working knowledge of commercial and technical material covering economics and business in a multinational setting. Cross-cultural references and translation exercises provide opportunity for comparative and contrastive analysis of American and German cultural patterns in a business setting.

Prereq: GER 234 or departmental permission.

**• GER 362 German for International Trade II.****Three sem hours**

Instruction in the four language skills (speaking, reading, writing and listening) develops in-depth working knowledge of commercial and technical material covering economics and business in a multinational setting. Cross-cultural references and translation exercises provide opportunity for comparative and contrastive analysis of American and German cultural patterns in a business setting. In German.

Prereq: GER 234 or departmental permission.

**GER 425 German Literature from the Middle Ages to the Baroque.****Three sem hours**

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 Survey of German Literature or departmental approval.

**GER 426 German Literature from 1750-1850.****Three sem hours**

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. The course is taught in German.

Prereq: GER 341, 342 Survey of German Literature or departmental approval.

**GER 427 German Literature from 1850-1945.****Three sem hours**

Selections from the literature of Poetic Realism, Biedermeier, Naturalism, Neo-Romanticism and Expressionism, viewed against the background of political and cultural history, provide the material for classroom discussion and student reports.

Prereq: GER 341, 342 Survey of German Literature or departmental approval.

**GER 428 German Literature from 1945 to the Present.****Three sem hours**

The course familiarizes the student with those works which have shaped and are shaping current German literary and cultural life. Classroom discussion, papers and reports are in German.

Prereq: GER 341, 342 Survey of German Literature or departmental approval.

**GER 443 German Syntax and Advanced Composition.****Three sem hours**

Builds on the foundation in written expression acquired in GER 343. Class meetings focus on intensive vocabulary and idiom writing; treatment of the more complex structural features of German and syntactics. Frequent assignments increase the student's ability to write for a variety of purposes.

Prereq: GER 343 German Composition and GER 344 German Conversation or departmental approval.

**GER 444 Advanced German Conversation. Three sem hours**

The course develops advanced conversational fluency. Meets three times per week with a half-hour per lesson in the lab listening to recordings and making tapes. 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 344 German Conversation and GER 343 German Composition or departmental approval.

**• GER 446, 447 Business German. Three sem hours**

Introduction to the idiom and terminology describing the West German economy, economic geography, and business law. Emphasis is on business communication through the planning and writing of letters, reports, memos and minutes dealing with economics, finance, and industry in a multi-national setting. In German.

Prereq: Three years of college German or the equivalent or departmental approval.

**GER 451, 452 Readings in German. One, two sem hours**

Special projects in directed reading for majors and minors who have completed the available offerings in German, or who, because of most unusual circumstances, are granted departmental approval to substitute this for the regular courses.

Prereq: Departmental approval.

**GER 388, 488, 489 Internship. One, two, three sem hours**

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.

Prereq: Departmental approval.

**GER 497, 498, 499 Independent Study.****One, two, three sem hours**

Advanced study on an individual research basis in areas not covered in formal course work.

Prereq: Departmental approval.

**Special Topics**

GER 277, 278, 279, 377, 378, 379, 477, 478 and 479 are available for special topics.

GER 277, 377, 477 One sem hour

GER 278, 378, 478 Two sem hours

GER 279, 379, 479 Three sem hours

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: Departmental approval.

**Spanish**

New courses are identified with a bullet •.

**SPN 121, 122 Beginning Spanish. Five sem hours each**

Specific emphasis on basic principles of grammar. Practice in elementary conversation, pronunciation, composition and reading. Students are to spend one half-hour per day in the laboratory as part of their preparation.

**SPN 134 Spanish for the Bilingual. Five sem hours**

A course in basic grammar and composition designed for students with an oral command of Spanish. The course will be conducted in Spanish and will prepare the student for entry into more advanced Spanish classes.

Prereq: Native command of oral Spanish and departmental approval.

**SPN 221, 222 Intermediate Spanish.** Three sem hours each  
For rapid reading of the language. Special emphasis on vocabulary building and on idiomatic constructions. Students who plan to continue in Spanish should take concurrently course SPN 233, 234 Elementary Spanish Conversation.  
Prereq: SPN 122 Beginning Spanish, or three years of high school Spanish.

**SPN 233, 234 Elementary Spanish Conversation.** Three sem hours each  
Students who plan to continue in Spanish should take these courses concurrently with 221, 222 Intermediate Spanish. A review of Spanish grammar, simple composition, and extensive oral work. The course meets three times per week. The student will spend two one-half hour periods per week in the laboratory.  
Prereq: SPN 122 Beginning Spanish, or three years of high school Spanish.

**SPN 301 The Cultures of Spain.** Three sem hours  
A course that presents a panoramic view of the peoples of Spain, their cultures, environment and way of life. In Spanish.  
Prereq: SPN 222 Intermediate Spanish or equivalent.

**SPN 302 The Cultures of Spanish America.** Three sem hours  
A course that presents a panoramic view of the cultures, the peoples and the environment of Spanish America. In Spanish.  
Prereq: SPN 222 Intermediate Spanish or equivalent.

**SPN 341, 342 Survey of Spanish Literature.** Three sem hours each  
These courses deal with the development of different literary movements in Spain and with the major writers of the country from the middle ages to the present. In Spanish.  
Prereq: SPN 222 Intermediate Spanish or departmental approval.

**SPN 343 Spanish Composition.** Three sem hours  
A thorough review of grammatical principles and practice in composition.  
Prereq: SPN 234 Elementary Spanish Conversation or departmental approval.

**SPN 344 Spanish Conversation.** Three sem hours  
Improved pronunciation, the acquisition of an active vocabulary for the daily life and greater oral facility are the aims of this course. The course meets three times per week and students will spend three half-hour periods in the laboratory each week.  
Prereq: SPN 234 Elementary Spanish Conversation or departmental approval.

**SPN 351, 352 Survey of Spanish American Literature.** Three sem hours each  
These courses deal with the major writers of Spanish America from the colonial period to the present. In Spanish.  
Prereq: SPN 222 Intermediate Spanish or departmental approval.

**SPN 361 Spanish for International Trade I.** Three sem hours  
These courses provide further development of the four basic language skills, with an aim towards achieving a minimal professional language proficiency for working in companies with international dealings. The ability to comprehend commercial Spanish is increased by reading, summarizing, and reporting on foreign business publications. Practice in the composition and translation of Spanish business letters is offered. The course also includes units on other methods of business communication in Spanish, on the transportation of commercial products and on travel in Spanish-speaking countries.  
Prereq: Two years of college Spanish or the equivalent, or departmental permission.

**• SPN 362 Spanish for International Trade II.** Three sem hours  
This is a continuation of Spanish 361 and will share with SPN 361 the course description given above, with the understanding that SPN 361 is the prerequisite for SPN 362, and that these two courses may not be taken in reverse order.  
Prereq: SPN 361 or departmental permission.

**SPN 443 Advanced Spanish Composition.** Three sem hours  
Designed to give the Spanish major advanced training in writing Spanish.  
Prereq: SPN 343 Spanish Composition and SPN 344 Spanish Conversation, or departmental approval.

**SPN 444 Advanced Spanish Conversation.** Three sem hours  
This course may be repeated for supplementary credit. It meets three times a week and the students will spend three half-hour periods in the laboratory each week.  
Prereq: SPN 343 Spanish Composition and SPN 344 Spanish Conversation, or departmental approval.

**SPN 445 Spanish-American Prose.** Three sem hours  
A study of selected topics in Spanish-American literature. This course may be repeated for credit if the material of the course is in another area. In Spanish.  
Prereq: SPN 352 Survey of Spanish-American Literature or departmental approval.

**• SPN 446, 447 Business Spanish.** Three sem hours each  
These courses are the final required courses at the most advanced undergraduate level for students majoring in Business Spanish. They provide detailed instruction in the areas of 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 are also provided.  
Prereq: SPN 362 or the equivalent, or departmental permission.

**SPN 448 Modern Drama.** Three sem hours  
The development of modern Spanish drama and its various types will be studied. Plays to be read and discussed will be selected from the works of the principal dramatists of the nineteenth and twentieth centuries. In Spanish.  
Prereq: SPN 342 Survey of Spanish Literature or departmental approval.

**SPN 449 Romanticism.** Three sem hours  
A study of the major works of Hispanic Romanticism. In Spanish.  
Prereq: SPN 342 Survey of Spanish Literature or departmental approval.

**SPN 450 Spanish-American Theatre.** Three sem hours  
A study of the theatre in Spanish America from its beginning to the present. In Spanish.  
Prereq: SPN 352 Survey of Spanish-American Literature or departmental approval.

**SPN 451, 452, 453 Readings in Spanish.** One, two, and three sem hours  
Special projects in directed reading 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: Departmental approval.

**SPN 454 Modernism in Spanish America.****Three sem hours**

A survey of the literary movement known as "modernismo" in the literature of Spanish America. In Spanish.  
Prereq: SPN 352 Survey of Spanish-American Literature or departmental approval.

**SPN 455 The Generation of 1898.****Three sem hours**

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 Survey of Spanish Literature or departmental approval.

**SPN 456 Drama of the Golden Age.****Three sem hours**

The course will deal with the drama of the 16th and 17th centuries. Works of the major authors will be read and discussed. In Spanish.  
Prereq: SPN 341 Survey of Spanish Literature or departmental approval.

**SPN 457 Modern Novel.****Three sem hours**

(Formerly SPN 447)

The course will consist of a study of the development of the modern novel in Spain during the nineteenth and twentieth centuries. Representative novels will be read and discussed. In Spanish.  
Prereq: SPN 342 Survey of Spanish Literature or departmental approval.

**SPN 463 Don Quixote.****Three sem hours**

The universal qualities of both the book and its author, as well as their relation to Spanish life and literature of the period, are discussed. In Spanish.  
Prereq: SPN 341 Survey of Spanish Literature or departmental approval.

**SPN 471 Culture and Literature of the Hispanic Groups in the U.S.****Three sem hours**

A study of the cultures of the major Hispanic groups in the U.S. The study of representative literary works will 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 will be required.

**SPN 481 History of Spanish Language.****Two sem hours**

A survey of the development of the Spanish language from spoken Latin to our days, based on the reading and discussion of texts.  
Prereq: SPN 343 Spanish Composition or departmental approval.

**SPN 482 Language of the Hispanic Groups in the U.S.****Three sem hours**

A survey of present-day social and regional variations in the Spanish spoken in the U.S. and the historical background of these variations. In Spanish.  
A minimum of 24 hours of field experience will be required.

**SPN 388, 488, 489 Internship.****One, two, three sem hours**

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.  
Prereq: Departmental approval.

**• SPN 490 Intensive Spanish.****Six sem hours**

An intensive summer course offered in Mexico. Instruction on a small-group (4-5 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.****One, two, three sem hours**

Advanced study on an individual research basis in areas not covered in formal course work.  
Prereq: Departmental approval.

**Special Topics**

Courses SPN 277, 278, 279, 377, 378, 379, 477, 478, 479 are available for special topics.

**SPN 277, 377, 477 One sem hour****SPN 278, 378, 478 Two sem hours****SPN 279, 379, 479 Three sem hours**

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: Departmental approval.

**General Language and Bilingual-Bicultural Education**

New courses are identified with a bullet •.

**FLA 387, 487 Cooperative Education in Foreign Languages.****Three sem hours each**

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 will ordinarily consist of two work experiences alternated with full-time attendance at the University.

Prereq: FLA 387 - junior standing; admission to the program by application only.

Prereq: FLA 487 - 387 Cooperative Education in Foreign Languages; admission to the program by application only.

**FLA 411 Methods of Teaching Modern Language.****Two sem hours**

The history, theory, and techniques of modern language teaching. Not counted in Group I of the degree requirements, nor toward a major in any modern language. Should be taken during the junior year. Not open to students on academic probation.

**FLA 412 Methods of Teaching Modern Language in Elementary Grades.****Two sem hours**

The technique and materials of teaching French, Spanish and German in the elementary grades. Not counted in Group I of the degree requirements, nor toward a major in any modern language. Should be taken before practice teaching. Not open to students on academic probation.

**FLA 421 History and Theory of Bilingual Education.****Three sem hours**

An overview of the history of bilingualism and bilingual education in the U.S., including a study of the problems arising from language diversity and of possible solutions to them through bilingual education. Topics will include 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 will be required. Not open to students on academic probation.

**FLA 422 Teaching Hispanic Culture and Language.****Three sem hours**

The techniques and materials for teaching the language and culture of Hispanic groups within the bilingual classroom. The course also includes techniques and materials for teaching other subject matter areas in Spanish. A minimum of 24 hours of field experience in a bilingual classroom will be required. Not open to students on academic probation.

**FLA 497, 498, 499 Independent Study.****One, two, three sem hours**

Advanced study on an individual basis in areas not covered in formal course work.

Prereq: Departmental approval.

**Special Topics**

Courses FLA 277, 278, 279, 377, 378, 379, 477, 478, and 479 are available for special topics.

**FLA 277, 377, 477 One sem hour**

**FLA 278, 378, 478 Two sem hours**

**FLA 279, 379, 479 Three sem hours**

These courses deal with subject matter not provided in other departmental offerings. Under Special Topics, the department has offered such courses as: German and Germany Today, French Feminine Fiction, Don Quixote in Translation, and other foreign language literatures in English translation. Students may elect such a course several times as long as different topics are studied.

Prereq: Departmental approval.

**Italian**

New courses are identified with a bullet •.

**• ITA 131 Elementary Italian Conversation.****Three sem hours**

Introductory course including practice in pronunciation, conversation, reading composition.

**Classical Languages****• CLA 121, 122 Beginning Latin.****Five sem hours each**

The purpose of the course will be to bring students to the level of facility requisite to read ancient authors with enjoyment and understanding.

**• CLA 123, 124 Beginning Ancient Greek.****Five sem hours each**

The course is intended for students with a strong interest in archaic and classical Greek culture. Its purpose is to acquaint students with sufficient ancient Greek grammar, vocabulary, and syntax to facilitate the reading of the masterpieces of Greek literature.

**English for Foreign Students****• ESL 100, 102, 104, 106 Beginning English as a Second Language****Three sem hours each**

Introductory courses in basic grammar, writing, reading (vocabulary development) and speaking and listening.

Prereq: Departmental placement.

**• ESL 110, 112, 114, 116 Elementary English as a Second Language.****Three sem hours each**

Courses emphasize basic principles of grammar, sentence-level and simple paragraph writing, literal level reading and conversational speaking and listening.

Prereq: Departmental placement.

**• ESL 118 Elementary English as a Second Language - Laboratory.****One sem hour**

Individualized and/or group lab sessions.

**• ESL 210, 212, 214, 216 Intermediate English as a Second Language.****Three sem hours each**

Covers complex sentence structure, grammar, paragraph level writing, informational reading and beginning formal speaking and sustained factual listening.

Prereq: Departmental placement.

**• ESL 218 Intermediate English as a Second Language - Laboratory.****Two sem hours**

Individual and/or group lab sessions.

Prereq: Departmental placement.

**ESL 310, 312 Advanced English as a Second Language.****Three sem hours each**

(Formerly ESL 110)

The courses are designed to expand grammar skills, develop knowledge of organizational patterns used in writing compositions, improve reading comprehension and speed, and practice listening and speaking in conversational and academic settings. Group lab and/or individualized lab sessions required.

Prereq: Departmental placement.

**ESL 314, 316 Advanced English as a Second Language.****Three sem hours each**

(Formerly ESL 111)

The courses are designed to expand grammar skills, develop knowledge of organizational patterns used in writing compositions, improve reading comprehension, speed, and practice listening and speaking in conversational and academic settings. Group lab and/or individualized lab sessions required.

Prereq: Departmental placement.

**• ESL 318 Advanced English as a Second Language - Laboratory.****Three sem hours**

Individual and/or group lab sessions.

Prereq: Departmental placement.

**ESL 412 Academic English as a Second Language.**

(Formerly ESL 210)

**Three sem hours**

This course is designed for foreign students whose command of English is not sufficient for them to follow a regular full-time program at the University. The course will provide practice in skills required for successful completion of university courses, with special emphasis on writing.

Prereq: Departmental permission.

**• ESL 414 Academic ESL Reading.****Three sem hours**

This course is designed to further improve reading comprehension and speed using materials of the length and complexity characteristic of academic texts.

Prereq: Departmental placement.

**ESL 416 Academic English as a Foreign Language.** **Three sem hours**  
 (Formerly ESL 211)  
 This course is designed for foreign students whose command of the English language is not sufficient for them to follow a regular full-time program at the University. The course will provide practice in skills required for successful completion of university courses, with special emphasis on listening, note-taking and speaking.  
 Prereq: Departmental permission.

**ESL 420 Review of English as a Second Language.** **Three sem hours**  
 (Formerly 212)  
 This course is designed primarily for non-native English speakers who have already taken ESL 412 and 416 and 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, etc. This course may be repeated for credit.  
 Prereq: Departmental permission.

**Courses Given in English**

New courses are identified with a bullet •.

• **CEN 104 Men of Power: Ancient and Modern.** **Three sem hours**  
 (see Humanities, page 129).

**CEN 106 Rome and America.** **Six sem hours**  
 (see Humanities, page 130).

**CEN 134 Etymology.** **Three sem hours**  
 (Formerly 234)  
 Greek and Latin words and roots which are current in English forms are studied in order to enlarge the vocabulary and to produce a more discriminating use of words. Applies as Group I elective in Basic Studies.

• **CEN 153 From the Middle Ages to the Renaissance: Sacred and Profane Love.** **Three sem hours**  
 (see Humanities, page 130).

• **CEN 181 The Legacy of Greece.** **Three sem hours**  
 (see Humanities, page 131).  
 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. The course is taught by a classicist and a member of the English Department or the Art Department.

**CEN 215 The Culture of the Latino Groups in the United States.** **Three sem hours**  
 A study of contemporary life of the principal Latino groups in the United States. Since their language reflects a unique socio-cultural situation, it 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.

**CEN 223 Introduction to Language.** **Three sem hours**  
 The basic principles of linguistic structure as they apply to the Western European languages taught in the department. Applies as Group I elective in Basic Studies.

**CEN 301 Mythology.** **Three sem hours**  
 The course is designed to acquaint the student with 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 are studied and provide an interpretation of mythological allusions in literature.

**CEN 410 Teaching English to Speakers of Other Languages.** **Three sem hours**  
 A study of various approaches to the teaching of oral and written skills in English to speakers of other languages. The fundamental structures (phonology, morphosyntax, and semantics) of English will be contrasted with those of foreign languages commonly found in Michigan. Includes practice in analyzing existing instructional materials and experience with techniques for developing the desired skills.  
 Prereq: (1) One year college-level foreign language or equivalent and (2) ENG 301 or ENG 302; or departmental approval.

**BILINGUAL BICULTURAL EDUCATION**

Adviser Chairman, **William Cline**  
 (487-1035)

Department of Foreign Languages and Bilingual Studies

**Group Minor in Bilingual Bicultural Education**  
 (Spanish-English) (24 semester hours)

1. Language proficiency in both Spanish and English; proficiency will be determined by examination.
2. Undergraduate Bilingual Bicultural core curriculum
 

FLA 421 History and Theory of Bilingual Education .....	15
FLA 422 Teaching Hispanic Culture and Language .....	3
CEN 410 Teaching English as a Second Language .....	3
SPN 471 Culture and Literature of Hispanic Groups in the U.S. ....	3
SPN 482 Language of Hispanic Groups in the U.S. ....	3
3. Electives from the following:
 

ANT 238 Ethnographic Survey .....	3
CEN 215 Culture of the Latino Groups in the United States .....	3
CEN 223 Introduction to Language .....	3
ENG 320 Introduction to Linguistic Science .....	3
GEO 321 Geography of Latin America .....	3
HIS 357 History of Mexico .....	3
PSY 340 Psychological Perspectives on Prejudice and Discrimination .....	3
SOC 214 Racial and Cultural Minorities .....	3
SPN 443 Advanced Spanish Composition .....	2
SPN 444 Advanced Spanish Conversation .....	3
4. Substitute CUR 327 Multicultural Practicum (5 semester hours) for CUR 326 School and Society in Group IV (Education) requirements
5. Students on a Secondary Education Curriculum must also take G & C 405 Basic Guidance Concepts and Processes (2 semester hours).

## FRENCH

Adviser Chairman, **Benjamin Palmer**  
(487-0499)

Foreign Languages and Bilingual Studies Department

**Major in Language and Literature (30 semester hours)**

	Semester Hours
FRN 341, 342 Survey of French Literature . . . . .	6
FRN 343 French Composition and 344 French Conversation . . . . .	6
FRN 443 French Syntax and 444 Advanced French Conversation . . . . .	6
Courses on the 400 level . . . . .	6
Electives in French at any level . . . . .	6

Students majoring in French will also take FLA 411 Methods of Teaching Modern Language if they are on the junior-senior high school curriculum.

The courses listed here meet the minimum requirement only. It is highly desirable that students specializing in French beyond the minimum. Many graduate schools require additional work in literature.

**Major in Business Language (30 semester hours)**

Adviser Chairperson, **Brigitte Muller**  
(487-4390)

	Semester Hours
FRN 341, 342 Survey of French Literature . . . . .	6
FRN 343 French Composition and 344 French Conversation . . . . .	6
FRN 443 French Syntax and 444 Advanced French Conversation . . . . .	6
FRN 446 Business French I . . . . .	3
FRN 447 Business French II . . . . .	3
Electives in French at any level . . . . .	6

\* See below.

## Minors Offered in French

**I. Minor in Language and Literature (20 semester hours)**

	Semester Hours
FRN 341, 342 Survey of French Literature . . . . .	6
FRN 343 French Composition and 344 French Conversation . . . . .	6
Electives in French, at any level . . . . .	8

**II. Minor in French Language\* (20 semester hours)**

FRN 343 French Composition and 344 French Conversation . . . . .	6
FRN 443 French Syntax and 444 Advanced French Conversation . . . . .	6
Electives in French, at any level . . . . .	8

**III. Minor in French Literature (20 semester hours)**

FRN 341, 342 Survey of French Literature . . . . .	6
Courses in French literature on the 400 level . . . . .	6
Electives in French, at any level. (Students on teaching curriculum should include FRN 343-344.) . . . . .	8

\* Minor in French on the elementary curriculums, see page 225.

\* Students majoring or minoring in Business French are eligible to take the examinations leading to the "Diplôme supérieur de Français des Affaires" or the "Certificat Pratique de Français Commercial et Economique" granted by the Chamber of Commerce and Industry of Paris and administered at Eastern Michigan University.

**IV. Minor in Business Language (20 semester hours)**

FRN 343 French Composition and 344 French Conversation . . . . .	6
FRN 443 French Syntax and 444 Advanced French Conversation . . . . .	6
FRN 446 Business French I . . . . .	3
FRN 447 Business French II . . . . .	3
Electives at any level . . . . .	2

## GERMAN

Adviser Chairman, **Raymond Schaub**  
(487-4448 or 487-0130)

Department of Foreign Languages and Bilingual Studies

**Major (30 semester hours)**

	Semester Hours
Required courses for a major in German language and literature:	
GER 343 German Composition and 344 German Conversation . . . . .	6
GER 341, 342 Survey of German Literature . . . . .	6
GER 443 German Syntax and 444 Advanced German Conversation . . . . .	6
Electives in German Literature on the 400 level . . . . .	6
Electives in German, at any level . . . . .	6

Students majoring in German on the junior-senior high school curriculum will also take FLA 411 Methods of Teaching Modern Language.

**Minors (20 semester hours)**

	Semester Hours
<b>I. Required courses for a minor in German language and literature:</b>	
GER 343 German Composition and 344 German Conversation . . . . .	6
GER 341, 342 Survey of German Literature . . . . .	6
Electives in German, at any level . . . . .	8
<b>II. Required courses for a minor in German language*:</b>	
GER 343 German Composition and 344 German Conversation . . . . .	6
GER 443 German Syntax and 444 Advanced German Conversation . . . . .	6
Electives in German, at any level . . . . .	8
<b>III. Required courses for a minor in German literature:</b>	
GER 341, 342 Survey of German Literature . . . . .	6
Courses in German literature on the 400 level . . . . .	6
Electives in German, at any level . . . . .	8

**Major & Minor in Business German****• Major in Business German (30 semester hours)**

	Semester Hours
GER 341-342 Survey of German Literature . . . . .	6
GER 361-362 German for International Trade . . . . .	6
GER 443 Advanced Syntax and Composition . . . . .	3
One literature course at the 400 level . . . . .	3
GER 446-447 Business German . . . . .	6
Electives in German at any level . . . . .	6

• **Minor in Business German** (20 semester hours)

Either GER 341 or 342 Survey of German Literature .....	3
GER 361-362 German for International Trade .....	6
GER 443 Advanced Syntax and Composition .....	3
Either GER 446 or 447 Business German .....	3
Electives in German at any level .....	5

Examinations leading to certification in Business German recognized by the German-American Chamber of Commerce, the Carl Duisberg Society and the Goethe House will be administered to qualified students at Eastern Michigan University.

**LANGUAGE AND INTERNATIONAL TRADE**

(Non-Teaching)

Adviser Chairman, **Ray E. Schaub**  
(487-4448)

Department of Foreign Languages and Bilingual Studies

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 trade and business. The major objective of the program is to provide students with skills, knowledge, and understanding needed to function in a foreign environment.

**Group Major in Language and International Trade** (60 semester hours)

	<b>Semester Hours</b>
<b>Business Area Core</b> .....	30
1. 24 hours in operational areas (accounting finance, secretarial, management, marketing, office administration; other combinations are possible with adviser's approval). Students with no high school or business courses may be asked to take ADS 100 within the concentration .....	24
2. MKT 460 International Business .....	3
(Prereq.: MKT 368)	
3. ECO 370 Comparative Economic Systems OR ECO 480 International Economics .....	3
(Prereq: ECO 201 and 202)	
<b>Language and Area Studies</b> .....	27
1. French, German or Spanish 222, 234 and 361, 362, plus an additional six hours of electives. Students with advanced language proficiency will select appropriate courses in consultation with an adviser from the department.	

Students in French, German, and Spanish have the option of participating in a cooperative work exchange in an area of the world where French, German, or Spanish is spoken.

Students may take examinations leading to certification in Business French, German and Spanish. (See page 100).

2. GEO/HIS 316 History and Geography of Modern Europe or GEO/HIS 317 History and Geography of Spanish America .....	6
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Note: Three hours may be used as electives in history and geography. The courses are also Group III electives. Prereq: Geography 110 and either history 101, 102, or 105.

3. Political Science: One from the following list:	
PLS 211 European Political Systems .....	3
PLS 220 Comparative Legal Systems .....	3
PLS 271 Introduction to International Relations .....	3
PLS 341 International Law .....	3
PLS 342 International Organization .....	3
PLS 354 Government and Politics of Canada .....	3
PLS 367 Contemporary Political Systems of Latin America .....	3
Field Experience .....	3-6
FLA 489 Internship in International Trade or FLA 387, 487 Cooperative Education in Language and International Trade	

Students completing the above "group major" have met the major and minor requirements for graduation. No outside minor is needed.

**MINOR IN ENGLISH AS A FOREIGN LANGUAGE FOR NON-NATIVE SPEAKERS OF ENGLISH**

(23-24 semester hour minimum)  
(Non-Teaching)

Adviser Chairperson, **Jo Ann Aebersold**  
(487-0130)

Foreign Languages and Bilingual Studies Department

This minor is limited to international students who are non-native speakers of English with test scores in the ranges indicated. Those with Test of English as a Foreign Language (TOEFL) scores of 390 to 449 or Michigan Test of English Language Proficiency scores of 60 to 74 will complete all of the following courses.

International students who are non-native speakers of English with Test of English as a Foreign Language scores of 450 to 500 or Michigan Test of English Language Proficiency scores of 75-80 will begin this minor by taking ESL 412 and ESL 414 and/or ESL 416.

<b>Required Courses</b>	<b>Semester Hours</b>
ESL 310 and 312 Advanced English as a Second Language .....	3 ea.
ESL 314 and 316 Advanced English as a Second Language .....	3 ea.
ESL 412 Academic English as a Second Language .....	3
ESL 416 Academic English as a Second Language .....	3
ESL 420 Review of English as a Second Language .....	3
ENG 121 English Composition or ENG 125 English Composition for International Students .....	3
ENG 225 Intermediate Composition, or other approved ENG writing courses, with written permission .....	3
Restricted elective from the following: .....	3
ENG 301 Introduction to the English Language	
ENG 302 Modern English Syntax	
Other ENG language or linguistic courses, with written permission	
SPH 224 Public Speaking	
SPH 350 Persuasion	
SPH 356 Argumentation and Debate	
SPH 359 Small Group Discussion	

Other advanced SPH speech courses not including "dramatic arts" courses, with written permission

This minor is administered jointly by the Department of Foreign Languages and Bilingual Studies and the Department of English Language and Literature.

## INTENSIVE ENGLISH AS A SECOND LANGUAGE FOR NON-NATIVE SPEAKERS OF ENGLISH

Adviser Chairperson: **Jo Ann Aebersold**  
(487-0319)

Department of Foreign Languages and Bilingual Studies

Courses provide all levels of instruction in English to students whose proficiency in English is not sufficient to permit them to enroll in regular academic courses. The 400-level support courses offer further instruction in English for academic purposes while students are enrolled in another six hours of regular course work. Placement in the program shall be determined by teacher evaluation or official test scores on either the TOEFL or the Michigan Test. Up to one week prior to the beginning of classes, all students have the option of demonstrating proficiency in English by taking either the TOEFL or the Michigan Test. The regular university academic probation and dismissal policies as set forth in the Graduate and Undergraduate Catalogs shall also apply to students enrolled in the English as a Second Language Program.

## SPANISH

Adviser Chairman, **Geoffrey Voght**  
(487-0178)

Department of Foreign Languages and Bilingual Studies

### Major (30 semester hours)

#### Semester Hours

Required courses for a major in Spanish:	
SPN 343 Spanish Composition and 344 Spanish Conversation .....	6
SPN 443 Advanced Spanish Composition and 444 Advanced Spanish Conversation .....	6
Additional courses in Spanish at the 300 level or above .....	12
Electives in Spanish at any level chosen in consultation with an adviser in the department ..	6

Students majoring in Spanish will also take FLA 411 Methods of Teaching Modern Language, if they are on the junior-senior high school curriculum.

The courses here meet the minimum requirements only. It is highly desirable that students specializing in Spanish or planning to continue with graduate work carry their work beyond the minimum; many graduate schools require additional courses in literature.

### Minors (20 semester hours)

#### Semester Hours

<b>Minor in Spanish language:</b>	
SPN 343 Spanish Composition and 344 Spanish Conversation .....	6
Either of the following options:	
1) SPN 443 Advanced Spanish Composition and SPN 444 Advanced Spanish Conversation ...	6
or	
2) Additional courses in Spanish at the 300 level or above .....	6
Electives in Spanish at any level, chosen in consultation with an adviser in the department ..	8

### II. Minor in Spanish literature:

Any two of the following courses:	
SPN 341, 342, 351, 352 .....	6
Additional courses in Spanish at the 300 level or above. (Students on teaching curricula should include SPN 343-344.) .....	
Electives in Spanish at any level, chosen in consultation with an adviser in the department ..	

### III. Minor in Spanish culture:

SPN 301 Spanish Life and Customs and SPN 302 Culture and Civilization of Latin America .....	
Additional courses in Spanish at the 300 level or above. (Students on teaching curriculums should include SPN 343-344.) .....	
Electives in Spanish at any level, chosen in consultation with an adviser in the department. .	

## Major & Minor in Business Spanish

- **Major in Business Spanish** (30 semester hours)
  1. Language proficiency in both Spanish and English; proficiency will be determined by examination.
  2. Course requirements (30 hours):
 

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 361-362 Spanish for International Trade I and II .....	6
SPN 446-447 Business Spanish .....	6
Electives in Spanish at any level, chosen in consultation with an adviser in the department	
  
- **Minor in Business Spanish** (20 semester hours)
  1. Language proficiency in both Spanish and English; proficiency will be determined by examination.
  2. Course requirements (20 semester hours):
 

Either of the following:	
SPN 301 The Cultures of Spain .....	3
OR	
SPN 302 The Cultures of Spanish America .....	3
Either of the following:	
SPN 342 Survey of Spanish Literature .....	3
OR	
SPN 352 Survey of Spanish American Literature .....	3
SPN 361-362 Spanish for International Trade I and II .....	6
Electives in Spanish at any level, chosen in consultation with an adviser in the department. .	

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 to qualified students each Spring at Eastern Michigan University.



# GEOGRAPHY AND GEOLOGY

Department Head: Elwood J.C. Kureth.

Professors: George M. Howe, Eugene Jaworski, Elwood J.C. Kureth, Horace A. MacMahan, Jr., James R. McDonald, Marshall S. McLennan, Carl F. Ojala, Lawrence L. Ogden, Ross N. Pearson, C. Nicholas Raphael, Ranjit Tirtha, Daniel S. Turner, Robert M. Ward.

Associate Professors: E. Lorene Hall, Robert Mancell, Andrew A. Nazzaro.

Assistant Professor: Allen Cichanski.

The Geography and Geology Department offers a major and a minor in geography (page 117), geology (page 117), earth science (page 116), and land use analysis (page 118), a minor in historic preservation (page 117), a minor in coastal environments (page 116), and a new minor in cartography and remote sensing (page 119).

## Area Studies

The Geography and Geology Department participates in the majors and minors in Area Studies (Africa, Asia/Far East, Latin America, Middle East/North Africa, Soviet Union). See page 125 for requirements.

## Urban and Regional Planning

The Geography and Geology Department has developed an Urban and Regional Planning concentration in conjunction with the Public Administration Program of the Political Science Department. See page 160 for details.

## GRADUATE STUDY

The Geography and Geology Department offers graduate work leading to the master's degree in geography and historic preservation planning. A non-degree certification program of study (five courses) in historic preservation is also offered. For descriptions of graduate courses and programs in the Geography and Geology Department, please consult the Graduate Catalog.

## GEOGRAPHY AND GEOLOGY COURSES IN SCIENCE

New courses are identified with a bullet •.

Where the department notes an intention to offer a course in a particular pattern such as "fall semester only" this information is meant to aid student program planning but is not a guarantee that the course will be offered.

The following courses count in Group II:

**GEO 108 Earth Science.** **Four sem hours**  
Selected topics and concepts from geology, physical geography, meteorology, oceanography, and astronomy provide the basis for understanding current environmental problems and for perceiving fundamental options as man increases pressure on the world's resources and ecosystems. A requirement for both the major and minor in geography. Lecture: three hours per week. Laboratory: one two-hour period per week.

**GEO 114 National Parks and Monuments.** **Two sem hours**  
An analysis of the geology, vegetation and wild life which led to the designation of certain U.S. lands as national parks monuments and recreational areas. A further view of the environmental impact of man on the ecology of these areas resulting from population pressures of camping, trail use, fire, tourist services and recreational facilities; with consideration of the N.P.S. conservation policies which govern preservation of our heritage. Illustrated lectures and demonstrations.

**GEO 160 Physical Geology.** **Four sem hours**  
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 which have shaped the landscape. Lecture: three hours per week. Laboratory: one two-hour period per week. Required for the geology major.

**GEO 202 Science for Elementary Teachers.** **Three sem hours**  
Lectures and laboratory deal with earth science concepts and teaching methodology. Nationally used elementary science curriculums serve to acquaint the student with techniques of teaching basic earth science concepts. Emphasis is on student-centered, process-oriented approaches that are widely used in elementary classrooms.

**GEO 208 Natural Environmental Hazards.** **Three sem hours**  
Analysis of devastating earthquakes, volcanic eruptions, floods, violent storms, freezes, and other earth science catastrophes, emphasizing their causes and human adjustments to these events.

Prereq: GEO 108 Earth Science or permission of the department.

**GEO 226 The Oceans.** **Two sem hours**  
A study of the oceans, including coasts, development of currents, current patterns, salinity, temperatures, tides, sediment deposition, submarine topography, the energy balance and research techniques. Stresses the economic potential of marine waters and products of the sea in relation to man.

Prereq: GEO 108 Earth Science or permission of the department.

**GEO 227 Topographic Maps.** **Two sem hours**  
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. (Fall semester only).

Prereq: GEO 108 Earth Science.

**GEO 228 Mineralogy.** **Three sem hours**  
A study of the crystallography, crystal chemistry and identification of the most important rock forming and economic minerals of the crust of the earth. (Fall semester only). Lecture: two hours weekly. Laboratory: two hours weekly.

Prereq: CHM 131 General Chemistry I.

**GEO 229 Rocks of Michigan.** **Two sem hours**  
The identification and classification of rocks with special emphasis on characteristics used in the field.

Prereq: GEO 108 Earth Science.

**GEO 230 Historical Geology.** **Four sem hours**  
The origin and development of the earth's features along with the development and succession of plant and animal groups culminating in the forms that now inhabit the earth. Field trips and reports may be required. (Fall semester only). Lecture: three hours per week. Laboratory: one two-hour period per week.

Prereq: GEO 108 Earth Science, or permission of the Department.

**GEO 250 Introduction to Coastal Processes.****Three sem hours**

Description and analysis of the physical and biogeographical processes of the coastal ocean and lakes. 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: GEO 108 Earth Science or BIO 105 Biology and the Human Species or permission of the department.

**GEO 255 Field Geology I.****Three sem hours**

Theory and practice of techniques of field mapping in local Michigan areas. Reconnaissance mapping using pace-compass traverse; precision mapping using tape, alidade, plane table and stadia rod.

Prereq: GEO 108 Earth Science or permission of the department.

**GEO 301 Cartography.****Three sem hours**

A lecture-laboratory course in the techniques of map making and visual representation of geographic materials. 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.

**GEO 302 Advanced Cartography.****Three sem hours**

Cartography 302 is a continuation of Cartography 301. Cartography 302 emphasizes the student's production of thematic maps; the use of press-on materials, tapes and acetate overlays; scribing; computer mapping; reproduction techniques. One hour lecture, four hours laboratory per week.

Prereq: GEO 301 Cartography or permission of the department.

**GEO 303 Field Geography.****Three sem hours**

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. Lecture, laboratory and discussion.

**GEO 305 Aerial Photograph Interpretation.****Three sem hours**

Analysis of remote sensing imagery, including black and white, color, and color infrared photography. Use of aerial photographs in land use planning, geologic mapping, and environmental studies. Two hours lecture and one two-hour lab per week.

Prereq: GEO 108 Earth Science or permission of the department.

**GEO 309 Drifting Continents.****Three sem hours**

An introduction to the new theories on continental drift and sea-floor spreading, emphasizing the origin and historical development of these theories, and their influence on improving our understanding of the close relation between earthquakes, volcanic eruptions, mountain building, the formation of continents, global sea-level changes, paleoclimates, and the evolution of life. Lecture: two hours per week. Laboratory: one two-hour period per week.

Prereq: GEO 108 Earth Science or permission of the department.

**GEO 315 Land Use Planning.****Three sem hours**

An analysis of planning concepts and techniques to include population forecasts, use standards, and comprehensive planning. Emphasis on developing zoning ordinances, reviewing site plans and grant applications and preparing general development plans. Enabling legislation and regional planning discussed.

Prereq: Not open to freshmen.

**GEO 324 Weather and Climate.****Three sem hours**

Introduction to the properties and processes of the earth-atmosphere system that create weather and climate; deals summarily with observation, in depth with interpreting and understanding weather phenomena from commonplace to devastating; includes analytic description of climatic regions. Laboratory: two consecutive hours, one day a week; Lecture two hours per week.

Prereq: GEO 108 Earth Science or one course in physics, chemistry or biology.

**GEO 325 Geomorphology.****Three sem hours**

A detailed study of surface features and the degradational, aggradational and structural process by which they are formed. World-wide examples are used extensively.

Prereq: GEO 108 Earth Science and GEO 230 Historical Geology or permission of the department.

**GEO 326 Structural Geology.****Three sem hours**

Introduction to the terminology, relationship and deformation of rocks with examples from specific areas. Laboratory problems are directed toward understanding of geologic structures in three-dimensions and their representation. Interpretation, projection and illustration as applied to economic problems. Lecture: two hours weekly. Laboratory: two hours weekly. (Fall semester only)

Prereq: GEO 108 Earth Science.

**GEO 327 Soil Science.****Three sem hours**

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: GEO 108 Earth Science or department permission.

**GEO 329 Petrology.****Three sem hours**

The origin, occurrence, association, chemical relationships and distribution of igneous, sedimentary and metamorphic rocks; laboratory study of rocks. (Winter semester only).

Prereq: GEO 228 Mineralogy. Not open to students with credit in GEO 229 Rocks of Michigan.

**GEO 330 Sedimentation and Stratigraphy.****Three sem hours**

The properties, description and classification of sedimentary rocks; processes and environments of deposition of sediments; the relationships between deformation of the earth's crust and sedimentation; procedures in study and interpretation of sedimentary rocks. Field trips and reports required.

Prereq: GEO 108 Earth Science or equivalent, GEO 228 Mineralogy.

**GEO 331 Paleontology.****Three sem hours**

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 animal groups most important in the fossil record. (Winter semester only).

Prereq: GEO 108 Earth Science or GEO 230 Historical Geology or BIO 105 Biology and the Human Species or department permission.

**GEO 350 Coastal Ecological Biogeography.****Three sem hours**

Analysis of physical setting and ecological function of the Great Lakes coastal types in relation to the macro vegetation, fish, and wildlife communities. Impact of land use on coastal wetlands and techniques for assessing the values of fish and wildlife resources.

Prereq: GEO 250 Introduction to Coastal Processes or permission of department.

**GEO 355 Geologic Field Methods.** One sem hour  
 Construction principles and use of conventional instruments in geologic surveying, note taking and preparation of illustrations and reports. (Fall semester only).  
 Prereq: GEO 228 Mineralogy, GEO 326 Structural Geology, GEO 329 Petrology completed or currently enrolled or department permission. Not open to students with credit in GEO 356 Field Geology II.

**GEO 356 Field Geology II.** Two sem hours  
 Instruction and practice in measurement of stratigraphic sections, mapping areal geology and geologic structure, in Rocky Mountain west. With Field Geology I satisfies field requirement for major in geology.  
 Prereq: GEO 230, 255, 326, 329 and 330 or permission of the department.

**GEO 370 Glacial Geology.** Three sem hours  
 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 are drawn with the movements and deposits of modern glaciers; Paleoclimatic cycles of Precambrian and Paleozoic glacial ages and theories are stressed. Field trips and reports required. (Fall semester only).  
 Prereq: GEO 108 Earth Science, GEO 230 Historical Geology, GEO 330 Sedimentation and Stratigraphy or permission of the department.

**GEO 377 Special Topics in Earth Science.** Two sem hours

**GEO 378 Special Topics in Geography.** Two sem hours

**GEO 379 Special Topics in Geology.** Two sem hours  
 Treats subjects not provided for in the regular department offerings.  
 Prereq: See the department.

**GEO 424 Climatology.** Two sem hours  
 Examines techniques by which climates at all scales can be analyzed and evaluated, applying the results to regional classification and to solutions of numerous problems in which there is impact of climate on human activities, such as urban living, transportation, architecture, agriculture, etc.  
 Prereq: GEO 324 Weather and Climate.

**GEO 428 Optical Mineralogy.** Four sem hours  
 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. (Fall semester, odd-numbered years only).  
 Prereq: GEO 228 Mineralogy and PHY 224 Electricity and Light.

**GEO 430 Petroleum Geology.** Three sem hours  
 A study of the origin, migration and accumulation of oil and natural gas. Exploration techniques in the use of structural geology, sedimentology and stratigraphy are stressed. The various drilling coring methods, drilling equipment and the procedures of drilling are reviewed. Field trips to active drilling and/or producing areas and reports are required. Studies of specific oil and gas fields will be assigned. (Winter semester only).  
 Prereq: GEO 230 Historical Geology, GEO 326 Structural Geology, GEO 329 Petrology, GEO 330 Sedimentation and Stratigraphy or permission of the department.

**GEO 439 Economic Geology.** Three sem hours  
 A study of the geochemical behavior of metallic elements; the origin; processes, controls and classification of ore deposits; and fossil fuels. The latter part of the course deals with the occurrence and distribution of metallic and nonmetallic deposits. (Fall semester, even-numbered years only).  
 Prereq: GEO 228 Mineralogy.

**GEO 448 The Subsurface Water Resource.** Three sem hours  
 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. (Winter Semester only).  
 Prereq: GEO 108 Earth Science, junior standing.

**GEO 450 Shorelands Management Analysis.** Three sem hours  
 An analysis of modern coastal management problems in the Great Lakes with emphasis on Michigan's shorelands. Selected topics, which are team-taught, include beach erosion, flood hazards, loss of wetlands, endangered coastal species and coastal planning. Field trips and guest speakers.  
 Prereq: GEO 250 Introduction to Coastal Processes or permission of the department.

**GEO 470 Quantitative Methods in Geography and Geology.** Three sem hours  
 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 permission of the department.

**GEO 475 Computer Mapping.** Three sem hours  
 Laboratory course centering on the SYMAP Program (Synagraphic Mapping System) and including other current mapping programs such as CMAP, GRID, RGRID, CONTUR, and MAPL. Basic principles of coordinate location, data representation, matrix interpolation, contouring, and line plotting. A course in computer programming (Fortran) or cartography is recommended.

**GEO 477 Special Topics in Earth Science.** Three sem hours

**GEO 478 Special Topics in Geography.** Three sem hours

**GEO 479 Special Topics in Geology.** Three sem hours  
 An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied.  
 Prereq: Permission of the department.

**GEO 485 Introduction to Remote Sensing.** Three sem hours  
 An introduction to the various remote sensing techniques and interpretation of Landsat, thermal, and radar imagery. Electromagnetic spectra, energy interactions, and spectral signatures will be covered. Some computer assisted interpretation.

**GEO 488, 489, 490 Internship.** Four, five and six hours  
 Supervised internship in some aspect of geography, geology, earth science, or land use which 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.

**GEO 495 Environmental Impact Assessment.****Three sem hours**

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 108 Earth Science or BIO 105 Biology and the Human Species or BIO 106 Orientation to Biology, junior or senior standing, or permission of the department.

## GEOGRAPHY COURSES IN SOCIAL SCIENCE

New courses are identified with a bullet •.

The following courses count in Group III:

**GEO 100 Future Worlds.****Three sem hours**

Introduces the student to reasons for studying the future from a geographical perspective, methods used in futuristics, the state of future shock today, the consequences of a shrinking world, and growing interdependence. The focus is on the possible worlds that may exist in the year 2000 and beyond.

**GEO 110 World Regions.****Three sem hours**

Geographic evaluation of man's 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 115 Observing the Human Landscape.****Two sem hours**

A geography course for students of any curriculum. The aim is to enlighten travel experiences by developing observational awareness and perceptual appreciation of human landscapes and by enhancing sensitivity to the personality of places. Illustrated lectures and discussion.

**GEO 235 Economic Geography.****Three sem hours**

Systematic treatment of economic activities in selected world locations. Emphasizes areal factors included in the evaluation, production and distribution of goods and services.

**GEO 300 Location and Site Analysis.****Three sem hours**

Practical and theoretical application of models which explain the location of man's activities on earth.

Prereq: GEO 235 Economic Geography or Department Permission.

**GEO 310 Energy Awareness.****Three sem hours**

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.

Recommended: GEO 110 World Regions or GEO 108 Earth Science.

**GEO 312 Geography of Canada.****Two sem hours**

A detailed regional treatment. The natural setting, the distribution of the people, the important occupations and the problems of future development in each part of Canada.

Prereq: GEO 110 World Regions or GEO 108 Earth Science.

**GEO 313 Geography of Michigan.****Two sem hours**

Detailed analysis of the natural setting, population and settlement characteristics, industry, recreation, and agriculture in the state.

Prereq: GEO 110 World Regions or GEO 108 Earth Science.

**GEO 314 Geography of the U.S.S.R.****Three sem hours**

A systematic and regional study of physical, cultural, and economic factors in the Soviet Union; environmental resources, economic activities, population, transportation and communications are included.

Prereq: GEO 110 World Regions or GEO 108 Earth Science.

**GEO 316 History and Geography of Modern Europe.****Six sem hours**

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 stressing major political, social and cultural developments. A requirement for students who major in Language and International Trade. The same as HIS 316.

Prereq: GEO 110 World Regions and either HIS 101, 102, or 105.

**GEO 317 History and Geography of Spanish America.****Six sem hours**

An interdisciplinary presentation of the history and geography of Spanish America with emphasis on political, cultural, and socio-economic forces from the conquest to the present. Similarities and differences within and between nations are stressed as are the special relationships which exist between the nations and the United States. A requirement for students who major in Language and International Trade. The same as HIS 317.

Prereq: GEO 110 World Regions and either HIS 101, 102, or 105.

**GEO 318 Geography of Asia.****Three sem hours**

Natural setting, culture traits, ecological circumstances, economic systems, population—resource bases and regional development problems of the major Asian realms.

Prereq: GEO 110 World Regions or GEO 108 Earth Science.

**GEO 319 Geography of Europe.****Three sem hours**

Systematic treatment of the natural setting, cultural patterns, economic activities, and developmental problems of the continent; selected significant regions are analyzed in detail.

Prereq: GEO 110 World Regions or GEO 108 Earth Science.

**GEO 320 Geography of the United States and Canada.****Three sem hours**

A regional treatment. The natural setting, the distribution of the people, the important occupations and the problems of future development in each of several regions.

Prereq: GEO 110 World Regions or GEO 108 Earth Science.

**GEO 321 Geography of Latin America.****Three sem hours**

A regional treatment. The natural setting, the distribution of the people, the important occupations and the problems of future development in each of several regions.

Prereq: GEO 110 World Regions or GEO 108 Earth Science.

**GEO 322 Geography of Africa.****Three sem hours**

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 World Regions or GEO 108 Earth Science.

**GEO 323 Geography of Australia and Pacific Islands.****Three sem hours**

The natural setting, the distribution of the people, the important occupations and the problems of future development in each of several regions.

*Prereq:* GEO 110 World Regions or GEO 108 Earth Science.

**GEO 332 Urban Geography.****Three sem hours**

A study of geographic principles related to distribution, function, structure and regional setting of urban centers.

*Prereq:* GEO 110 World Regions or GEO 108 Earth Science.

**GEO 333 Settlement Geography.****Three sem hours**

Cultural, functional, and ecological factors underlying man's settlement patterns; pioneer occupation and migration.

*Prereq:* One of the following: GEO 110 World Regions; GEO 108 Earth Science, or GEO 115 Observing the Human Landscape.

**GEO 335 Historic Preservation.****Three sem hours**

Introduction of the general concepts and goals of history preservation and urban conservation. The built environment as a cultural heritage resource; objectives of cultural surveys and inventories; methods of preservation and conservation; and planning and preservation.

*Recommended:* GEO 115 Observing the Human Landscape.

**GEO 340 Medical Geography.****Three sem hours**

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 will be emphasized.

*Prereq:* GEO 110 World Regions or permission of the department.

**GEO 343 Geography of Sport.****Two sem hours**

A study of the regional organization and variation of sports activities; the origin and diffusion of sports and athletes; and the effect of sport on the landscape and national character.

**GEO 344 Recreation Geography.****Three sem hours**

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:* One of the following GEO 114, 115, 315, 360, BIO 224, or PED 270.

**GEO 360 Cultural Geography.****Three sem hours**

Human landscape patterns; emphasis is upon the processes concerned with their origins, locations and persistence.

*Prereq:* GEO 110 World Regions or permission of the department.

**GEO 361 Geography of Population.****Three sem hours**

An analytical study of population characteristics and growth, world patterns of fertility, mortality and migration. Major attention is given to human population problems, including ecology, resources depletion and impacts of urbanization.

*Prereq:* GEO 110 World Regions or permission of the department.

**GEO 387 Cooperative Education in Geography and Geology.****Three sem hours**

Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in geography, geology, earth science or land use analysis. The program consists of two work experiences alternated with full-time University attendance. A written report is required at the end of each employment period. Use on geography or geology major, subject to departmental approval.

*Prereq:* Completion of sophomore year, geography, geology, earth science or land use analysis major. Admittance by application only. Offered on a credit/no credit basis.

**GEO 423 Principles of City and Regional Planning.****Three sem hours**

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 Urban Geography or permission of the department.

**GEO 431 Historical Geography of the United States.****Three sem hours**

The sequence of human occupation of the United States from pre-European times to the present. Temporal and spatial evolution of cultural landscapes.

*Prereq:* GEO 320 Geography of the United States and Canada or permission of the department.

**GEO 432 Political Geography.****Three sem hours**

A study of the theory and concepts of political geography, using contemporary examples. Size, location, resources, boundaries, population and level of technology are emphasized within and without the political framework.

*Prereq:* GEO 110 World Regions or GEO 108 Earth Science or permission of the department.

**GEO 433 Political Geography of the United States.****Three sem hours**

A study of the variety and diversity of geographic forms of political behavior, organization and structure in the United States.

*Prereq:* GEO 108 Earth Science or GEO 110 World Regions or permission of the department.

**GEO 434 The Geopolitical World.****Three sem hours**

Views of political space by world and regional states, strategies and capabilities for employing national power to carry out geopolitical goals.

*Prereq:* GEO 110 World Regions or permission of the department.

**GEO 435 Urban Form and Function.****Three sem hours**

Analysis of urban cultural tradition. Major emphasis will be given to evolving forms and functions of the Western city and to principles of townscape analysis as applied to European and North American cities.

*Prereq:* One of the following: GEO 115 Observing the Human Landscape or GEO 332 Urban Geography or HIS 101 or 102 History of Civilization; or senior standing.

**GEO 438 Industrial Location.****Three sem hours**

Techniques involved in industrial plant location; analysis of industrial location factors; and an overview of the distribution of world industry emphasizing the United States.

*Prereq:* GEO 235 Economic Geography or department permission.

**GEO 440 World Food Systems.** Three sem hours  
 An analysis of world agricultural technologies and patterns. The interrelationships among ecosystems, economic development, and political decision making will be investigated in a variety of world settings.  
 Prereq: GEO 235 Economic Geography or department permission.

**GEO 441 Transportation Geography.** Three sem hours  
 Analysis and evaluation of transportation modes and systems up to the present and for the future.  
 Prereq: GEO 235 Economic Geography or permission of the department.

**GEO 444 Census Applications to Spatial Analysis.** Three sem hours  
 Utilization of census materials as data resources and tools with application to spatial analysis and social service problems. The course is designed to prepare students to intelligently assemble, organize, analyze and utilize U.S. census data.

**GEO 487 Cooperative Education in Geography and Geology.** Three sem hours  
 Four to six months of full-time employment, at a firm or agency, chosen for imparting a practical educational experience in geography, geology, earth science or land use analysis. The program consists of two work experiences alternated with full time attendance at the University. A written report is required at the end of each employment period. Use on geography or geology major, subject to departmental approval. Offered on a credit/no credit basis.  
 Prereq: GEO 387 Cooperative Education in Geography-Geology. Admittance by application only.

**GEO 497, 498, 499 Individual Problems.** One, two and three sem hours  
 Advanced study on individual basis in which the department does not offer a formal course. Normally such work is restricted to proficient students in the senior year under the general conditions prescribed for honors courses.  
 Prereq: Permission of the department.

**GEO 348 Teaching Social Studies in Elementary Schools.** Three sem hours  
 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.  
 Prereq: One course in geography. Not open to students on academic probation.

**COASTAL ENVIRONMENTS MINOR**

(Non-Teaching)

Adviser Chairman, **C. Nicholas Raphael**  
 (487-1480)  
 Geography and Geology Department

The coastal environments minor requires a minimum of 20 hours. To complete the requirements in the minor, students are required to complete the following program core courses (15 hours) and a minimum of 6 hours of electives.

	Semester Hours
<b>Program Core Courses (15 hours)</b>	
GEO 108 Earth Science .....	4
GEO 226 Oceans .....	2
GEO 250 Coastal Processes .....	3
GEO 350 Coastal Ecological Biogeography .....	3
GEO 450 Shorelands Management Analysis .....	3
Electives (a minimum of 6 hours are required) ...	6
GEO 160 Physical Geology	
GEO 208 Natural Environmental Hazards	
GEO 305 Aerial Photograph Interpretation	
GEO 315 Land Use Planning	
GEO 325 Geomorphology	
GEO 330 Sedimentation and Stratigraphy	
GEO 495 Environmental Impact Assessment	

This suggested listing is not intended to be restrictive, and the individual student, in conjunction with the program adviser, may select, prior to registration, some elective courses which are not listed.

**EARTH SCIENCE**

Adviser Chairman, **Horace MacMahan**  
 (487-3140)  
 Geography and Geology Department

**Earth Science Major (30 semester hours)**

	Semester Hours
<b>Required courses for a major in earth science:</b>	
GEO 108 Earth Science .....	4
GEO 226 The Oceans .....	2
GEO 228 Mineralogy, or:	
GEO 229 Rocks of Michigan .....	3-2
GEO 230 Historical Geology .....	4
AST 203 Exploration of the Universe .....	3
GEO 309 Drifting Continents .....	3
GEO 324 Weather and Climate .....	3
GEO 331 Paleontology, or:	
GEO 325 Geomorphology .....	3
*Electives .....	5-6

\*In consultation with departmental advisers, students will select courses compatible with their program objectives.

**GEOGRAPHY COURSES  
 IN EDUCATION**

New courses are identified with a bullet •.

The following courses count in Group IV:

**GEO 347 Teaching Earth Science and Physical Geography.** Three sem hours  
 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.  
 Prereq: GEO 108 Earth Science or equivalent and junior standing or permission of the department. Not open to students on academic probation.

**Earth Science Minor (20 semester hours)**

	Semester Hours
Required courses for a minor in earth science:	
GEO 108 Earth Science .....	4
GEO 226 The Oceans .....	2
GEO 229 Rocks of Michigan .....	2
AST 203 Exploration of the Universe .....	3
GEO 309 Drifting Continents .....	3
GEO 324 Weather and Climate .....	3
One of the following courses .....	3
GEO 228 Mineralogy	
GEO 230 Historical Geology	
GEO 325 Geomorphology	
GEO 331 Paleontology	
GEO 370 Glacial Geology	

**GEOGRAPHY**

Adviser Chairman, Carl Ojala  
(487-0232)

**Geography Major (30 semester hours)**

	Semester Hours
Required courses for a major in geography:	
GEO 108 Earth Science .....	4
GEO 110 World Regions .....	3
GEO 235 Economic Geography .....	3
Two of the following techniques courses .....	6
GEO 300 Location & Site Analysis	
GEO 301 Cartography	
GEO 303 Field Geography	
GEO 305 Aerial Photography Interpretations	
GEO 470 Quantitative Methods in Geography and Geology	
One of the following physical courses .....	2-3
GEO 226 Oceans	
GEO 324 Weather & Climate	
GEO 325 Geomorphology	
GEO 327 Soil Science	
GEO 448 Subsurface Water Resources	
Two of the following systematic courses .....	6
GEO 235 Economic Geography	
GEO 310 Energy Awareness	
GEO 332 Urban Geography	
GEO 360 Cultural Geography	
GEO 361 Population Geography	
GEO 431 Historical Geography of the U.S.	
GEO 432 Political Geography	
GEO 438 Industrial Location	
One of the following regional courses .....	3
GEO 314 Geography of the U.S.S.R.	
GEO 318 Geography of Asia	
GEO 319 Geography of Europe	
GEO 320 Geography of the U.S. and Canada	
GEO 321 Geography of Latin America	
GEO 322 Geography of Africa	
GEO 323 Geography of Australia and Pacific Islands	
*Electives .....	6-5

\*In consultation with departmental advisers, students will select courses compatible with their program objectives.

**Geography Minor (20 semester hours)**

	Semester Hours
Required courses for a minor in geography:	
GEO 108 Earth Science .....	4
GEO 110 World Regions .....	3
*Electives .....	13

Students on the later elementary curriculum who elect a major or minor in geography should choose at least five semester hours from the following list: GEO 313, 314, 318, 319, 320, 321, 322.

**GEOLOGY**

Adviser Chairman, Lawrence Ogden  
(487-1480)

**Geology Major (30 semester hours)**

	Semester Hours
Required courses for a major in geology:	
GEO 160 Physical Geology .....	4
GEO 228 Mineralogy .....	3
GEO 230 Historical Geology .....	4
GEO 326 Structural Geology .....	3
GEO 329 Petrology .....	3
GEO 330 Sedimentation and Stratigraphy .....	3
**Field Geology .....	4-8
*Electives .....	6-2

It is strongly recommended that general chemistry and mathematics through calculus be elected by those geology majors intending to enter the geologic profession or enroll in graduate school.

**Geology Minor (20 semester hours)**

	Semester Hours
Required courses for a minor in geology:	
GEO 160 Physical Geology .....	4
GEO 228 Mineralogy .....	3
GEO 230 Historical Geology .....	4
GEO 326 Structural Geology .....	3
GEO 329 Petrology .....	3
*Electives .....	4

**HISTORIC PRESERVATION MINOR**

Adviser Co-Chairman, Marshall McLennan  
(487-0232)

Adviser Co-Chairman, Andrew Nazzaro  
(487-3140)

Geography and Geology Department

The historic preservation minor comprises 24-26 hours

	Semester Hours
Required courses (20 hours)	
GEO 115 Observing the Human Landscape .....	2
GEO 335 Historic Preservation .....	3
*HIS 223 History of the U.S. to 1877 .....	3
*HIS 224 History of the U.S. 1877 to the Present	3
GEO 333 Settlement Geography .....	3
FA 429 History of American Architecture .....	3
GEO 431 Historical Geography of the U.S. ....	3
*American history majors will substitute electives	

\*In consultation with departmental advisers, students will select courses in the elective group compatible with their program objectives.

\*\*Students on Bachelor of Arts curriculum may substitute GEO 331 Paleontology and three semester hours of electives for field geology, total required for the major to remain 30 semester hours.

Selected Electives (two courses) . . . . .	4-6
ANT 135 Introduction to Cultural Anthropology	
ANT 150 Introductory Archeology	
ECO 338 Land Economics	
GEO 235 Economic Geography	
GEO 300 Location and Site Analysis	
GEO 301 Cartography	
GEO 303 Field Methods	
GEO 313 Geography of Michigan	
GEO 315 Land Use Planning	
GEO 332 Urban Geography	
GEO 360 Cultural Geography	
GEO 344 Recreational Geography	
GEO 423 City and Regional Planning	
GEO 436, 437 Historic Preservation Project	
HEC 350 Historic Near Environment	
HEC 351 Historic Near Environment Laboratory	
HIS 305 History of the Indians in the U.S.	
HIS 313 Michigan History	
HIS 362 U.S. Urban History	
IED 105 History of Industrial Technology	
IED 127 Basic Architectural Drawing	
IED 201 Construction Technology	
IED 400 Site Planning and Development	
PSY 350 Environmental Psychology	
RES 210 Real Estate Principles & Practices	
RES 310 Real Estate Finance	
SOC 306 The Urban Community	

This listing is not intended to be restrictive. In conjunction with the minor adviser, the student may select other appropriate courses prior to registration.

## LAND USE ANALYSIS

(Non-Teaching)

Adviser Chairman, **Eugene Jaworski**  
(487-1480)  
Geography and Geology Department

The Land Use Analysis Program is an interdisciplinary 36 hour major, or 24 hour minor. Emphasis is on current land use problems including the deterioration of urban cores, lack of coordination in land development, loss of open space and other environmental amenities, and the difficulty of educating local decision makers. Applied in nature, the program is designed to provide the necessary skills to develop zoning ordinances, analyze site plans, critique general development plans, as well as to review grant applications, environmental impact statements, and regional management policies. As an interdisciplinary course of study, the program will utilize the contributions of several departments, particularly in the areas of biological science, land economics, public policy and government, and real estate management.

For course requirements, see section below on majors and minors, or contact **Eugene Jaworski**, Land Use Coordinator.

The program's structure includes several required courses, selection from a techniques group, and a group of electives. The basic studies prerequisites are only recommended.

### Land Use Analysis Minor (24 semester hours)

Required Courses:	Semester Hours
GEO 315 Land Use Planning	3
GEO 495 Environmental Impact Assessment	3

<b>Techniques Courses:</b> Select two . . . . .	6
GEO 300 Location and Site Analysis	
GEO 301 Cartography	
GEO 303 Field Methods	
GEO 305 Aerial Photograph Interpretation	
<b>Electives:</b> . . . . .	12
Students will select any four courses in consultation with their adviser to complete the minor. Among these elective courses are the following:	
GEO 208 Natural Environmental Hazards	
BIO 224 Principles of Conservation	
ECO 338 Land Economics	
SOC 306 The Urban Community	
GEO 327 Soil Science	
PLS 330 Urban Politics	
ECO 332 Urban Economics	
RES 210 Real Estate Principles and Practices	
GEO 335 Historic Preservation	
GEO 361 Geography of Population	
GEO 344 Recreational Geography	
IED 400 Site Planning and Development	
GEO 438 Industrial Location	
ECO 455 Economic Efficiency in the Public Sector	

### Land Use Analysis Major (36 semester hours)

	Semester Hours
<b>Required Courses (16 hours)</b>	
BIO 224 Principles of Conservation . . . . .	4
ECO 338 Land Economics . . . . .	3
GEO 315 Land Use Planning . . . . .	3
RES 210 Real Estate Principles and Practices . . . . .	3
GEO 495 Environmental Impact Assessment . . .	3
<b>Techniques Courses</b> . . . . .	9
GEO 300 Location and Site Analysis	
Computer Science Course from MTH 137, ORI 215, or IED 331	
GEO 301 Cartography	
GEO 303 Field Methods	
GEO 305 Aerial Photograph Interpretation	
Applied Statistics Course from ECO 310, ORI 365, or GEO 470	

<b>Electives</b> . . . . .	11
Students will select, in consultation with their adviser, eleven hours of electives which complement their land use program. Among these elective courses are the following:	
ACC 246 Accounting for Public Administrators	
REC 270 Organization and Administration of Community Recreation	
SOC 306 The Urban Community	
PLS 330 Urban Politics	
ECO 332 Urban Economics	
GEO 332 Urban Geography	
GEO 335 Historic Preservation	
ECO 350 Public Finance	
GEO 361 Geography of Population	
HIS 362 U.S. Urban History	
GEO 438 Industrial Location	
GEO 411 Transportation Geography	
ECO 455 Economic Efficiency in Public Sector	
BIO 207 Elements of Ecology	
GEO 208 Natural Environmental Hazards	
GEO 327 Soil Science	
ORI 367 Computer Augmented Statistics	
GEO 344 Recreational Geography	
IED 400 Site Planning and Development	
BIO 410 Limnology	
CHM 415 Environmental Chemistry	



BIO 420 Ecology  
 GEO 424 Climatology  
 GEO 448 The Subsurface Water Resource  
**Suggested Basic Studies Courses** (not a part of the major):  
 BIO 105 Biology and the Human Species  
 MTH 105 College Algebra  
 SOC 105 Introductory Sociology  
 GEO 108 Earth Science  
 ECO 201 and 202 Principles of Economics  
 PLS 202 State and Local Government  
 ENG 225 Intermediate Composition

## MINOR IN CARTOGRAPHY AND REMOTE SENSING

Adviser Chairman, **Eugene Jaworski**  
 (487-1480)

As a branch of human endeavor, cartography or map-making has a long and interesting history. The maps of early man were attempts to depict graphically the earth and objects on the earth in order to visualize them better. In the modern world, the map performs a number of significant functions, among which are its use as: a necessary tool in understanding spatial phenomena, an efficient device for storage of information, and a fundamental research tool permitting an understanding of distributions and relationships not otherwise known or imperfectly understood.

The goal of the minor is to provide a track for undergraduates which leads directly to entry level positions as cartographers and remote sensors. An objective of the minor is to provide balanced training between traditional cartographic work and machine processed maps. Emphasis will be placed on map properties, spatial concepts, mapping techniques, drafting skills, and graphic storage and display of data. A strongly recommended aspect of this training will be the internship or cooperative education experience at nearby private and public agencies.

### Course Requirements for the Minor

The minor consists of five core courses which total 15 hours and options within a variety of interdepartmental electives. From this latter group, a minimum of five hours must be selected to complete a minimum total of 20 semester hours.

	Semester Hours
<b>Required Core Courses:</b>	
GEO 301 Cartography .....	3
GEO 302 Advanced Cartography .....	3
GEO 305 Aerial Photographic Interpretation ...	3
GEO 475 Computer Mapping .....	3
GEO 485 Introduction to Remote Sensing .....	3
<b>Electives:</b>	
GEO 227 Topographic Maps .....	2
GEO 255 Field Geology I .....	3
GEO 387, 487 Cooperative Education .....	3
GEO 488, 489, 490 Internship .....	4, 5, 6
MTH 105 College Algebra .....	3
MTH 107 Plane Trigonometry .....	2
FA 301 Graphic Design .....	3
IED 121 Graphic Communication .....	3
IED 206 Surveying .....	3
IED 231 Industrial Computer Graphics .....	3
IED 400 Site Planning & Development .....	3
ORI 215 Computers in Business .....	3
<b>OR</b>	
CSC 137 Introduction to Computer Programming .....	3
ORI 417 Development of Management Information Systems .....	3

## HISTORY AND PHILOSOPHY

Department Head: **Ira M. Wheatley**

Professors: **Richard H. Abbott, Frederick M. Anderson, George H. Cassar, Donald F. Drummond, Jeffrey A. Fadiman, Della M. Flusche, Sidney Gendin, Louis B. Gimelli, Richard D. Goff, Daryl M. Hafter, J. Theodore Hefley, Michael W. Homel, H. Roger King, George S. May, R. Neil McLarty, Walter G. Moss, Lester B. Scherer, Janice J. Terry, James C. Waltz, Ira M. Wheatley, Reinhard Wittke**

Associate Professors: **Lee R. Boyer, W. Donald Briggs, Emanuel G. Fenz, Thomas H. Franks, Michael T. Jones, Howard F. Kamler, William A. Miller, Jiu-Hwa L. Upshur**

### UNDERGRADUATE PROGRAMS

The department offers majors and minors in History (see page 127) and Philosophy (page 127), and supervises a major in Social Science (page 129). The department also participates in the majors and minors in Area Studies (Africa, Asia/Far East, Latin America, Middle East/North Africa, Soviet Union). See page 125 for requirements.

### GRADUATE PROGRAMS

The department offers graduate work leading to the Master of Arts in History, and supervises two other programs: an M.A. in Social Science and a Master of Arts in Liberal Studies with a concentration in Social Science and American Culture. For descriptions of graduate courses and programs, please consult the Graduate Catalog.

### COURSES

New courses are identified with a bullet •

#### World History

##### HIS 100 The Comparative Study of Religion.

Three sem hours

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. (Cannot be used to meet basic studies history requirement or social science major or a history major and minor. Can be used for basic studies philosophy/religion requirement in humanities.)

##### HIS 101 History of Western Civilization. Three sem hours

A topical survey of western civilization from its Greco-Roman origins to the eighteenth 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 technology and scientific development are among the major topics considered.

##### HIS 102 History of Western Civilization. Three sem hours

A topical survey of western civilization from the eighteenth century to the present. The Enlightenment, political and industrial revolutions, nationalism, imperialism, totalitarianism and relations with emerging nations are among major topics considered.

**HIS 103 History of Non-Western Civilization.****Three sem hours**

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 105 The World in the Twentieth Century.****Three sem hours**

An examination of major national and international developments in the present century, focusing on such matters as colonialism, global warfare, and emerging nations, along with changes in business and industry, technology and the arts.

**HIS 277, 278, 279 Topics in History.****One, two, three sem hours**

Each offering will focus on a historical theme of limited scope but significant potential interest. Topics will change from semester to semester; up to three different topics may be offered in any one semester. *Note: Students may not count more than three hours of this course as credit towards the major or minor. It may not be used to satisfy Basic Studies requirements.*

**HIS 301 The Religions of South and East Asia.****Three sem hours**

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 The Comparative Study of Religion or HIS 103 History of Non-Western Civilization.*

**HIS 302 Near Eastern and Western Religions.****Three sem hours**

A survey of the historical evolution of the several religions originating in Western Asia, concentrating especially on the development and interaction of Judaism, Christianity and Islam.

*Prereq: HIS 100 The Comparative Study of Religion or HIS 101 History of Western Civilization.*

**HIS 325 The Family in History.****Three sem hours**

A history of the family in a particular area (for example, the United States or Europe), depending upon the instructor. The interaction between the family and broader cultural and economic forces over the course of time will be explored. The course will examine in historical perspective the various stages of life, such as childhood, adolescence, courtship, marriage, and old age. (May be taken only once for credit.)

**HIS 377, 378, 379 Topics in History.****One, two, three sem hours**

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.

*Prereq: One course in history or department permission.*

*Note: Students may count not more than six hours of this course as credit toward the major or minor.*

**Ancient and Medieval History****• HIS 104 Men of Power: Ancient and Modern.**

(See Humanities Courses, page 129).

**HIS 323 Greek History.****Three sem hours**

Ancient Greece from the Bronze Age to the Roman conquest.

**HIS 324 Roman History.****Three sem hours**

Ancient Rome from prehistoric background through the Age of Justinian.

**HIS 327 Europe in the Making, 500-1300. Three sem hours**

The combination of classical, Christian and barbarian elements to form a dynamic civilization in a previously underdeveloped area.

**European History****• HIS 127 The Splendid Centuries of Austria.**

(See Humanities Courses, page 130).

**Three sem hours****• HIS 128 Russia in the Age of Tolstoy and Dostoyevsky.**

(See Humanities Courses, page 130).

**Three sem hours****• HIS 151 Reason and Revolution.**

(See Humanities Courses, page 130).

**Three sem hours****HIS 309 France to 1789.****Three sem hours**

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.****Three sem hours**

An examination of the major trends in French history since the start of the Revolution. Cultural, social, economic and intellectual trends are stressed as well as political. The ways in which France has been a seedbed for new movements in Europe are particularly noted.

**HIS 316 History and Geography of Modern Europe.****Six sem hours**

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 stressing major political, social, and cultural developments. A requirement for student who majors in Language and International Trade. Same as GEO 316.

*Prereq: GEO 110 World Regions and either HIS 101, 102 or 105.*

**HIS 330 Europe in the Renaissance and Reformation.****Three sem hours**

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. Three sem hours**

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.****Three sem hours**

A history of Europe since Versailles with emphasis upon the Communist, Fascist and Nazi revolutions, their impact on the world; the origins and outbreak of the Second World War and the post-1945 era.

*Prereq: Junior standing or permission of the department.*

## American History

**HIS 335 History of Women in Europe. Three sem hours**  
A study of the history of women and views of women in Western society from the eighteenth century to the present. Emphasis will be placed on 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. Three sem hours**  
Germany 1815 to the present. Topics considered are 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 History of Russia to 1855. Three sem hours**  
A survey of political, economic and cultural trends in the history of Russia from Riurik to the death of Tsar Nicholas I, with special emphasis on the growth of Tsarist absolutism.  
*Prereq: Junior standing or permission of the department.*

**HIS 344 History of Russia since 1855. Three sem hours**  
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 death of Stalin. Special emphasis is on the Soviet period.  
*Prereq: Junior standing or permission of the department.*

**HIS 411 England to 1689. Three sem hours**  
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. Three sem hours**  
A continuation of 311 England to 1689. Deals with England in the period of imperial expansion, its industrial and social revolutions and its transition into a modern socially-minded nation.

**HIS 427 Europe from Absolutism to Revolution, 1648-1815. Three sem hours**  
A political, social and cultural study of Europe from the Peace of Westphalia through the Napoleonic Era. Emphasis will be placed upon the development of absolutism in France, constitutionalism in England, the Enlightenment and the French Revolution.

**HIS 435 Italy since 1815. Three sem hours**  
The political, social and economic development of Italy from the Congress of Vienna to the present. Emphasis will be placed upon the unification movement, domestic and foreign problems of the late nineteenth and twentieth centuries, World War I and its effects, Mussolini and Fascism, World War II and the new liberal republic.  
*Prereq: Junior standing or permission of the department.*

**HIS 456 Europe since 1945. Three sem hours**  
Study of the political, economic, social and diplomatic history of Europe since the end of W.W.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 permission of the department.*

**HIS 471 Social and Intellectual History of Nineteenth Century Europe. Three sem hours**  
A detailed study of the original concepts of Europe's nineteenth century intellectuals whose works were of major influence in the nineteenth and twentieth centuries.  
*Prereq: Junior standing or permission of the department.*

**HIS 107 Society in Crisis: 1848 and 1968. Six sem hours**  
(See Humanities Courses, page 130).

**HIS 123 Major Trends in United States History. Three sem hours**  
A selective treatment of United States history from colonial times to the present. Special emphasis will be placed on those aspects with significant impact on contemporary life in the United States.

**HIS 152 From the Gay Nineties to the Crash. Three sem hours**  
(See Humanities Courses, page 130).

**HIS 223 History of the United States to 1877. Three sem hours**  
A study of United States history from the period of exploration through the Reconstruction of the South following the Civil War.

**HIS 224 History of the United States, 1877 to the Present. Three sem hours**  
A study of United States history from the end of Reconstruction to the present.

**HIS 303 History of American Religion. Three sem hours**  
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 313 Michigan History. Three sem hours**  
A survey of major economic, social and political developments in Michigan from prehistoric times to the present. Emphasizes the period prior to the twentieth century.

**HIS 315 History of Black Americans. Three sem hours**  
A history of Americans of African ancestry from colonial times to the present. Special attention will be given to slavery, the post-Civil War South, northward migration and urban settlement and philosophies of racial progress.  
*Prereq: One course in American history.*

**HIS 317 History and Geography of Spanish America. Six sem hours**  
An interdisciplinary presentation of the history and geography of Spanish America with emphasis on political, cultural, and socio-economic forces from the conquest to the present. Similarities and differences within and between nations are stressed as are the special relationships which exist between the nations and the United States. A requirement for students who major in Language and International Trade. The same as GEO 317.  
*Prereq: GEO 110 World Regions and either HIS 101, 102 or 105.*

**HIS 336 History of Women in the United States and Great Britain, 1800 to the Present. Three sem hours**  
A comparative study of the history of women in the United States and Great Britain. The course will examine the ideology of the nature and role of women, the actual history of women's lives, the impact of industrialization, and the feminist movements of the nineteenth and twentieth centuries.  
*Prereq: One course in history, or department permission.*

**HIS 350 History of Canada. Three sem hours**  
A survey of the development of Canada from pre-historic times to the present with an emphasis on social and economic topics.

**HIS 355 Latin America: Colonial Period. Three sem hours**  
Latin-American history: Colonial Period surveys the history of Spanish America and Portuguese America from the conquest to the independence era. Attention is given to political, social and economic aspects.

Prereq: Junior standing or permission of the department.

**HIS 356 Latin America: National Period. Three sem hours**  
Surveys the history of Latin America from the independence era to the present. Political, social, intellectual and economic topics are examined.

Prereq: Junior standing or permission of the department.

**HIS 362 United States Urban History. Three sem hours**

The development of United States cities from the commercial town of colonial times to the industrial metropolis of today. Urban economic activities, boss and reform politics, immigrant and racial minorities and city and suburban expansion receive special attention.

Prereq: Junior standing or HIS 223 History of the United States to 1877 or HIS 224 History of the United States, 1877 to the Present.

**HIS 365 The Old South. Three sem hours**

The South from the colonial foundations to the formation of the Confederacy in 1861.

Prereq: HIS 123 Major Trends in United States History or HIS 223 History of the United States to 1877 and junior standing.

**HIS 380 American Colonies to Independence.**

**Three sem hours**

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 223 History of the United States to 1877 or equivalent.

**HIS 383 The Age of Jackson. Three sem hours**

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. Three sem hours**

A study of the United States from the Mexican War through the era of Reconstruction. Consideration will be given to 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.**

**Three sem hours**

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 has exerted on Twentieth-century America.

**HIS 425 The United States from 1917 to 1945.**

**Three sem hours**

A study of the United States from World War I through World War II. The course includes diplomatic relations, the domestic impact of both wars, modernization and culture conflict of the 1920s and the Depression and New Deal of the 1930s.

Prereq: HIS 123 Major Trends in U.S. History or HIS 224 History of the United States, 1877 to the Present.

**HIS 426 The United States Since World War II.**

**Three sem hours**

The origin of the cold war and containment theory, McCarthyism, the Supreme Court and civil liberties, the military-industrial complex, the United States vis-à-vis the Third world, the Vietnam venture and contemporary political and social trends.

Prereq: HIS 123 Major Trends in United States History or HIS 224 History of the United States, 1877 to the Present or junior standing.

**HIS 457 History of Mexico**

**Three sem hours**

An introduction to Mexican history from the Amerindian period through the recent past. Attention is given to 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.

**HIS 461 Foreign Relations of the United States.**

**Three sem hours**

A survey of the foreign relations of the United States. Emphasizes the diplomacy of the period after the Civil War.

**HIS 463 United States Labor History. Three sem hours**

A history of workers in the United States from colonial times to the present with special emphasis on developments occurring between 1820 and 1940. Working-class life and culture, labor unions, government-labor relations, and the impact of economic change are the course's major topics.

Prereq: One course in history.

**HIS 464 History of the Old West, 1540-1890.**

**Three sem hours**

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.**

**Three sem hours**

A history of the development of the American Constitution from English and American colonial origins to the present.

Prereq: HIS 123 Major Trends in United States History or HIS 223 History of the United States to 1877 or HIS 224 History of the United States, 1877 to Present or permission of the department.

**HIS 466 History of Indians in the United States.**

**Three sem hours**

A history of Indian tribes of the United States from pre-colonial times to the present.

**HIS 468 The American Mind to the Civil War.**

**Three sem hours**

Ideas and culture in America during the seventeenth, eighteenth and early nineteenth centuries. Includes such subjects as Puritanism, the Enlightenment and Romanticism/Transcendentalism, together with their general cultural implications.

Prereq: One course in history and junior standing.

**HIS 469 The American Mind Since the Civil War.**

**Three sem hours**

Ideas and culture in America during the late nineteenth and twentieth 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.** Three sem hours  
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 post-war diplomacy.  
Prereq: HIS 123 *Major Trends in United States History* or HIS 223 *History of the United States to 1877* or equivalent.

**HIS 486 The United States as an Emerging World Power.** Three sem hours  
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 223 *History of the United States to 1877* or HIS 224 *History of the United States, 1877 to the Present* or equivalent.

### Non-Western History

• **HIS 121 Islam: The Golden Age.** Three sem hours  
(See Humanities Courses, page 130).

• **HIS 182 The Legacy of China.** Three sem hours  
(See Humanities Courses, page 131).

**HIS 341 Middle Eastern History, 1798 to Present.** Three sem hours  
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.

**HIS 342 North Africa, 1798 to Present.** Three sem hours  
A survey of the political, economic, and social history of North Africa, Egypt, and the Sudan, with emphasis on the internal movements for independence from colonial powers.

**HIS 347 History of Sub-Saharan Africa.** Three sem hours  
The historical evolution of Africa's civilizations; their origins, interrelations in ancient times, responses to Europe's colonization and current roles in the modern world.  
Prereq: Junior standing or permission of the department.

**HIS 348 Twentieth Century Africa.** Three sem hours  
A detailed examination of Black Africa's response to the historical experience of European colonialism, along with the evolution of those responses, forms and patterns which are applicable not only to Africa, but also to the entire non-western world.

**HIS 441 History of the Far East to 1800.** Three sem hours  
A study of the history of China, Korea and Japan from ancient times to the beginning of the nineteenth century. Special attention will be given to political, cultural and social developments. The dominant role of China during this period will be emphasized.  
Prereq: Junior standing or permission of the department.

**HIS 442 History of Modern China.** Three sem hours  
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: Junior standing or permission of the department.

### Teaching Methods: History and Social Studies

**GEO 348 Teaching Social Studies in Elementary Schools.** Three sem hours  
(See Geography and Geology Department)

**HIS 481 The Teaching of Social Studies.** Three sem hours  
Designed for teachers in junior and senior high schools. An understanding of the nature of the subjects included in social science in the public schools and a study of problems related to the teaching of history and other social studies. Not open to students on academic probation.

### Independent Study

**HIS 497, 498, 499 Independent Study in History.** One, two, and three sem hours.  
Study on an individual basis in areas where 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: Permission of the department.

### PHILOSOPHY COURSES

New courses are identified with a bullet •.

#### I. Basic Courses

**PHI 100 Introduction to Philosophy.** Three sem hours  
The goal of this course is to introduce the student to philosophy by the study of important philosophical thinkers, problems and methodology.

**PHI 110 Philosophies of Life.** Three sem hours  
An introduction to differing accounts of what constitutes a meaningful life and how an individual can attain it. Representative topics include the notions of pleasure, love, empathy and power as discussed by such writers as Plato, Epicurus, Nietzsche, Lao Tse, and Buddha.

**PHI 130 Introduction to Logic.** Three sem hours  
An introduction to the techniques of analyzing and clarifying arguments and of distinguishing good reasoning from bad. The course includes a study of classical and modern deductive techniques, induction and common fallacies.

#### II. Intermediate Courses of General Interest

**PHI 212 Philosophical Bases of Contemporary Art** (Art, Music, Poetry). Three sem hours  
This course helps the student understand such contemporary art forms as art, music, and poetry, and the philosophical theories which underlie them, with an attempt to integrate the arts involved.

**PHI 220 Ethics.** Three sem hours  
An introduction to the major problems of ethical theory through careful study of works from selected writers. The course examines such problems as the nature of value, the relationship between morality and happiness, the justification of ethical decisions, the idea of obligation, and the application of ethical theory to specific ethical problems, which may concern both personal relationships and important public issues — e.g., abortion, euthanasia, medical experimentation, privacy and surveillance.

**PHI 225 Philosophical Foundations of Political Thought.****Three sem hours**

An examination of the philosophical bases of political ideology and theory. The course analyzes a variety of political theories, examining their component parts and discussing their basic assumptions. Examples are taken from the works of such writers as Plato, Aristotle, Hobbes, Locke, Rousseau, Mussolini, Marx and Thoreau.

**PHI 260 Existentialism.****Three sem hours**

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. Includes a study of the sources of existentialism as found in the works of Kierkegaard and Nietzsche.

**PHI 270 Philosophical Issues in Literature.****Three sem hours**

An examination of questions concerning man's nature, the nature of the world he confronts and man's quest for self-identity as these issues are illustrated in selected works of literature.

*Prereq: PHI 100 Introduction to Philosophy or PHI 110 Philosophy of Life or PHI 130 Introduction to Logic.*

**III. Studies in the History of Philosophy****PHI 230 History of Philosophy: Ancient and Medieval.****Three sem hours**

A study of important philosophical developments in Western thought from the pre-Socratics to the later Medieval philosophers. Covers the pre-Socratics, Plato, Aristotle, the Stoics, St. Augustine, St. Thomas Aquinas, Occam and Duns Scotus.

*Prereq: One course in philosophy or departmental approval of standing in the Humanities Program.*

**PHI 231 History of Philosophy: Modern. Three sem hours**

A continuation of 230 History of Philosophy: Ancient and Medieval. A study of important philosophical developments in Europe from the Renaissance to the early nineteenth century. The course covers such figures as Descartes, Spinoza, Leibnitz, Hobbes, Locke, Berkeley, Hume and Kant.

*Prereq: One course in philosophy or departmental approval of standing in the Humanities Program.*

**PHI 240 American Philosophy. Three sem hours**

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: A course in philosophy or departmental approval of standing in the Humanities Program.*

**PHI 470 Contemporary European Philosophy.****Three sem hours**

An examination of some of the major philosophical developments in continental Europe since approximately 1900. Representative topics include consciousness, meaning, intentionality, the life-world, and social process, as reflected in the works of such philosophers as Brentano, Husserl, Sartre, Merleau-Ponty and Ricoeur.

*Prereq: Two courses in philosophy.*

**PHI 471 Contemporary British and American Philosophy.****Three sem hours**

An examination of some of the major philosophical developments in England and the United States since approximately 1900. Representative topics include logical atomism, logical positivism, pragmatism, and ordinary language philosophy as reflected in the works of such philosophers as Russell, Carnap, Ayer, James, Dewey, Kyle, Austin, and Quine.

*Prereq: Two courses in philosophy.*

**IV. Areas of Special Interest**

- **PHI 122 American Studies: Success and the Pursuit of Happiness in 19th Century America.**

(See Humanities Courses, page 130).

**Three sem hours**

- **PHI 124 The Age of Wagner.**

(See Humanities Courses, page 130).

**Three sem hours**

- **PHI 150 Humanity and Technology.**

(See Humanities Courses, page 130).

**Three sem hours**

- **PHI 155 Narrative in Literature and Film.**

(See Humanities Courses, page 131).

**Three sem hours****PHI 215 Philosophy of Religion.****Three sem hours**

A philosophical study of the nature, goals and proper function of religion. Some possible topics are traditional arguments for the existence of God, grounds for disbelief in God, immortality, religious experience, the nature of religious language, the relation of science to religion, the role of faith and revelation, the connection between religion and ethics.

**PHI 310 Aesthetics.****Three sem hours**

A study of philosophical issues relating to works of art and other aesthetic objects. Possible topics include: the nature of aesthetic attitude, evaluation, aesthetic meaning and truth, expression in art, the nature of a work of art and basic value of art, the kinds of concepts used to talk about the arts.

*Prereq: One course in philosophy.*

**PHI 355 Philosophy of Law.****Three sem hours**

Philosophical questions about the law include the following areas: (1) What sorts of behavior should be illegal? For example, should prostitution be illegal or desecrating the American flag be illegal? In general, should there be victimless crimes? (2) What is punishment supposed to accomplish? When are we justified in punishing a person? (3) 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? (4) What is a legal system and how does it differ from a moral code?

*Prereq: 100 Introduction to Philosophy or 130 Introduction to Logic or departmental permission.*

**PHI 380 Philosophy of Science.****Three sem hours**

This course studies systematically the main philosophical problems raised by the results and methods of the physical and social sciences. Some of the topics covered are 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: Two courses in philosophy.*

**PHI 381 Symbolic Logic.****Three sem hours**

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.

*Prereq: 130 Introduction to Logic or department permission.*

## AREA STUDIES

(Non-Teaching)

Adviser Chariperson, Jiu-Hwa L. Upshur

(487-0066)

History and Philosophy Department

The College of Arts and Sciences of Eastern Michigan University offers an interdisciplinary Area Studies Program that prepares students to understand the background and specific problems of one of the cultural or geo-political areas of the modern world. Students study one of the following areas: Africa, Asia-Far East, Latin America, Middle East and North Africa, or the Soviet Union. With courses drawn from several departments, the student acquires information on the area's economy, geography, history, politics, society, and general cultural background. This can provide a foundation for graduate work with an area specialization or preparation for a career in government service or private business.

Students who enter the program choose either to major or to minor in Area Studies. The minor consists of 20 semester hours as described in the respective course lists. The major consists of 30 semester hours with the following minor requirements:

1. Africa (Minor in one of the following: anthropology, economics, geography, history, political science or sociology).

2. Asia-Far East (Minor in one of the following: anthropology, economics, geography, history, political science or sociology).

3. Latin America (Minor in one of the following: Spanish culture, Spanish language, Spanish literature, anthropology, economics, geography, history, political science, or sociology).

4. Middle East and North Africa (Minor in one of the following: anthropology, economics, geography, history, political science or sociology).

5. Soviet Union (Minor in one of the following: economics, geography, history, political science or sociology).

The course lists give required and/or elective courses for each major and minor. Students can also utilize the individual directed studies courses available through some departments for 1, 2, or 3 hours of credit to be applied as elective credit in the area major.

**Area Studies Major: Africa (30 hours)**

**Semester Hours**

Basic Courses . . . . . 9

ECO 201, 202 Principles of Economics I and II . . . . . 6

GEO 110 World Regions . . . . . 3

(Note: HIS 102 History of Western Civilization, 103 History of Non-Western Civilization and PLS 112 American Government to be taken as Group III requirements for graduation.)

Area Requirements . . . . . 15

ANT 236 Peoples of Africa . . . . . 3

EC 385 Economic Development . . . . . 3

GE 322 Geography of Africa . . . . . 3

HIS 347 History of Sub-Saharan Africa . . . . . 3

PLS 372 Government and Politics of Sub-Saharan Africa . . . . . 3

Area Electives . . . . . 6

Six hours to be chosen from the following:

ANT 135 Cultural Anthropology . . . . . 3

ANT 336 Social and Cultural Change . . . . . 3

ANT 339 Economic Anthropology . . . . . 3

FA 222 African and Afro-American Art . . . . . 3

ECO 366 Economics of Transportation . . . . . 3

EC 370 Comparative Economics Systems . . . . . 3

GEO 518 Problems, Sub-Saharan Africa . . . . . 2

HIS 342 North Africa 1798 to Present . . . . . 3

HIS 348 20th Century Africa . . . . . 3

**PHI 400 Philosophy Seminar-Topics. Two sem hours**

An intensive study of selected topics in philosophy. Class work consists of the analysis of philosophical texts, and is designed primarily for students majoring or minoring in philosophy. Since the subject matter changes, the course may be taken more than once for credit.

Prereq: Two courses in philosophy.

**PHI 425 Theory of Knowledge. Three sem hours**

An investigation of the nature, scope and limits of knowledge. Some possible topics are: the connection between belief and knowledge, knowledge of other people's minds, the reliability of memory, the possibility of certainty in knowledge, theories of truth.

Prereq: Two courses in philosophy.

**PHI 442 Philosophy of Mind. Three sem hours**

A philosophical study of the nature of mind. A study of the logical relations among mental concepts such as consciousness, choice, intention, emotion, feeling, the unconscious. The course also deals with human action and considers the possibility and meaning of an adequate explanation of psychological phenomena.

Prereq: Two courses in philosophy.

**PHI 460 Philosophy of Language. Three sem hours**

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 480 Metaphysics. Three sem hours**

A study of questions concerning the 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: Two courses in philosophy.

**PHI 497, 498, 499 Independent Study in Philosophy.**

One, two, and three sem hours  
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: Permission of the department.

**Area Studies Minor: Africa (20 hours)**

Area Requirements as listed for the major	15
Area Electives as listed for the major	5

**Area Studies Major: Asia-Far East (30 hours)**

	<b>Semester Hours</b>
Basic Courses	9
ECO 201, 202 Principles of Economics I and II	6
GEO 110 World Regions	3
<b>(Note: HIS 102 History of Western Civilization, 103 History of Non-Western Civilization and PLS 112 American Government to be taken as Group III requirements for graduation.)</b>	
Area Requirements	11
GEO 318 Geography of Asia	3
*HIS 441 Far East to 1800 or *HIS 442 History of Modern China	3
HIS 555 Studies in Far Eastern History	2
PLS 212 Asian Political Systems	3
Area Electives	10
Ten hours to be chosen from the following:	
ANT 135 Cultural Anthropology	3
ANT 238 Ethnographic Survey	3
ANT 336 Social and Cultural Change	3
FA 421 History of Oriental Art	3
ECO 385 Economic Development	3
ECO 587 Case Studies in Economic Development (when on the Far East)	3
HIS 301 Religions of South and East Asia	3
*HIS 441 Far East to 1800 or *HIS 442 History of Modern China	3

**Area Studies Minor: Asia-Far East (20 hours)**

Area Requirements as listed for the major	11
Area Electives as listed for the major	9

**Area Studies Major: Latin America (30 hours)**

	<b>Semester Hours</b>
Basic Courses	9
ECO 201, 202 Principles of Economics I and II	6
GEO 110 World Regions	3
<b>(Note: HIS 101 and 102 History of Western Civilization, and PLS 112 American Government to be taken as Group III requirements for graduation.)</b>	
Area Requirements	15
One three-hour course pertaining to Latin America from each of the following disciplines: Economics, Geography, History, Political Science, Sociology/Anthropology.	
The five courses are to be selected from Course List I below.	
Area Electives	6
The student is to complete the major by selecting courses totalling six hours from Course Lists I and/or II:	
Course List I: Latin American courses applicable to major requirements and electives	
ANT 233 Peoples and Cultures of Mexico	3
ANT 234 Peoples and Cultures of Latin America	3
ANT 238 Ethnographic Survey (when the topic pertains to Latin America)	3
ECO 471 Case Studies of Developing Economies (when on Latin America)	3

\*One of these courses must be taken to fulfill area requirements. Either or both of the others may be taken as area electives.

GEO 321 Geography of Latin America	3
HIS 355 Latin America: Colonial Period	3
HIS 356 Latin America: National Period	3
HIS 457 History of Mexico	3
PLS 367 Contemporary Political Systems of Latin America	3
Course List II: Alternate Area Electives: in addition to the courses listed above, the student may choose any of the following as electives to complete the major.	
ANT 135 Cultural Anthropology	3
ANT 335 The Study of Non-Primitive Societies	3
ANT 336 Social and Cultural Change	3
ECO 370 Comparative Economic Systems	3
GEO 512 Middle America and Caribbean Lands	2
GEO 513 South American Lands	2
HIS 560 Studies in Latin American History	2
SPN 302 Cultures of Spanish America	3
SPN 351 Survey of Latin American Literature	3
SPN 352 Survey of Latin American Literature	3
SPN 445 Spanish-American Prose	3
SPN 450 Spanish-American Theatre	3
SPN 454 Modernism in Spanish America	3

**(Note: The student who elects the Latin America Area Studies Major is strongly urged to minor in Spanish Language and Literature, Spanish Language or Spanish Literature.)**

**Area Studies Minor: Latin America (20 hours)**

Area Requirements as listed for the major	15
Area Electives as listed for the major	5

**Area Studies Major: Middle East and North Africa (30 hours)**

	<b>Semester Hours</b>
Basic Courses	9
ECO 201, 202 Principles of Economics I and II	6
GEO 110 World Regions	3
<b>(Note: HIS 102 History of Western Civilization, 103 History of Non-Western Civilization and PLS 112 American Government to be taken as Group III requirements for graduation.)</b>	
Area Requirements	9
ECO 385 Economic Development	3
*HIS 341 History of Middle East 1798 to Present or	
*HIS 342 North Africa 1798 to Present	3
PLS 371 Government and Politics of the Middle East	3
Area Electives	12
Twelve hours to be chosen from the following:	
ANT 135 Cultural Anthropology	3
ANT 236 Peoples of Africa	3
ANT 336 Social and Cultural Change	3
FA 340 History of Ancient Art	3
FA 420 History of Primitive Art	3
ECO 585 Economic Growth and Development	3
LIT 351 Folk Literature: Gods and Heroes	3
GEO 322 Geography of Africa	3
HIS 100 Comparative Study of Religion	3
HIS 302 Near Eastern and Western Religions	3
*HIS 341 History of Middle East 1798 to Present or	
*HIS 342 North Africa 1798 to Present	3
HIS 543 Nationalism and Modernization in Middle East and North Africa	3
MUS 536 World Music I	2

\*One of these courses must be taken to fulfill area requirements. Either or both of the others may be taken as area electives.



**Area Studies Minor: Middle East and North Africa (20 hours)**

Area Requirements as listed for the major .....	11
Area Electives as listed for the major .....	9

**Area Studies Major: Soviet Union (30 hours)**

	<b>Semester Hours</b>
Basic Courses .....	9

ECO 201, 202 Principles of Economics I and II ..	6
GEO 110 World Regions .....	3

(Note: HIS 101 and 102 History of Western Civilization and PLS 112 American Government to be taken as Group III requirements for graduation.)

Area Requirements .....	15
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ECO 472 The Soviet Economy .....	3
GEO 314 Geography of U.S.S.R. ....	3
HIS 344 Russia Since 1855 .....	3
HIS 547 Nineteenth Century Ideological Back- ground to the Russian Revolution .....	3
PLS 361 Government and Politics of the U.S.S.R.	3

Area Electives .....	6
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Six hours to be chosen from the following:	
ECO 370 Comparative Economic Systems ....	3
GEO 516 Problems in Soviet Geography ....	2
HIS 332 Modern Europe, 1815-1919 .....	3
HIS 333 Europe Since 1919 .....	3
HIS 343 Russia to 1855 .....	3
HIS 550 Twentieth Century Russia .....	2
PLS 362 Foreign Relations of the Soviet Union	3

**Area Studies Minor: Soviet Union (20 hours)**

Area Requirements as listed for the major .....	15
Area Electives as listed for the major .....	5

**HISTORY**

Adviser Chairman, **Ira Wheatley**  
(487-1018)

History and Philosophy Department

**Major (30 semester hours)****Required courses:**

HIS 101 or HIS 102 History of Western Civiliza- tion .....	3
HIS 223 or HIS 224 U.S. History or HIS 123 Major Trends in U.S. History, and any other U.S. history course .....	6
HIS 333 Europe Since 1919 .....	3
One course from the following list: HIS 301, HIS 302, HIS 341, HIS 342, HIS 347, HIS 348, HIS 355, HIS 356, HIS 457, HIS 441, HIS 442 .....	3
Electives .....	15

Note: Students majoring in history on a secondary teacher's certificate program will take, in addition, HIS 481 Teaching of Social Studies.

No more than three 100-level courses may be taken for credit toward the history major. Further, HIS 100 The Comparative Study of Religion may not be used for credit on the history major.

No more than two of the three U.S. History surveys (HIS 123, HIS 223, HIS 224) may be used for credit on the history major or minor.

**Minor (20 semester hours)**

	<b>Semester Hours</b>
Required courses:	
HIS 101 or HIS 102 History of Western Civiliza- tion .....	3
HIS 123 Major Trends in U.S. History, or HIS 233 U.S. History to 1877, or HIS 224 U.S. History since 1977 .....	3
One course from the following list: HIS 301, HIS 302, HIS 341, HIS 342, HIS 347, HIS 348, HIS 355, HIS 356, HIS 457, HIS 441, HIS 442 .....	3
Electives .....	11

Note: Students interested in preparing to teach social studies in junior high or middle schools are advised to elect the social science major and the history minor, with HIS 313 Michigan History as an elective on the history minor.

No more than two 100-level courses may be taken for credit towards the history minor. Neither HIS 100 The Comparative Study of Religion nor HIS 481 Teaching of Social Studies may be used for credit on the history minor.

No more than two of the three U.S. History surveys (HIS 123, HIS 223, HIS 224) may be used for credit on the history major or minor.

**PHILOSOPHY**

Adviser Chairman: **William A. Miller**  
(487-0074)

History and Philosophy Department

The philosophy major provides a basic knowledge of the field of philosophy. The general program supplements those in many other disciplines, such as teaching, the performing arts and the sciences, and a philosophy major prepares students for graduate work in philosophy, law, theology and other related liberal arts subjects. The programs for the major and minor, outlined below, are arranged to strike a balance among courses in each of the topical groups.

**Major (30 semester hours) Non-Teaching**

	<b>Semester Hours</b>
Required courses:	
PHI 130 Introduction to Logic .....	3
PHI 230 History of Philosophy: Ancient and Medieval .....	3
PHI 231 History of Philosophy: Modern .....	3
Two courses from Group A .....	6
PHI 425 Theory of Knowledge PHI 442 Philosophy of Mind PHI 460 Philosophy of Language PHI 470 Contemporary European Philosophy PHI 471 Contemporary British and American Philosophy PHI 480 Metaphysics	
One course from Group B .....	3
PHI 212 Philosophical Bases of Contemporary Art PHI 220 Ethics PHI 225 Philosophical Foundations of Political Thought PHI 310 Aesthetics PHI 355 Philosophy of Law PHI 400 Philosophy Seminar-Topics .....	2
Electives (to be chosen from other philosophy courses) .....	10

Note: In most cases it is recommended that students planning to attend graduate school in philosophy take Philosophy 381 Symbolic Logic and choose a majority of their electives from Group A.

**Minor (20 semester hours) Teaching or Non-Teaching**

	Semester Hours
Required courses:	
PHI 100 Introduction to Philosophy .....	3
PHI 130 Introduction to Logic .....	3
PHI 230 History of Philosophy: Ancient and Medieval .....	3
PHI 231 History of Philosophy: Modern .....	3
Electives (to be chosen from other philosophy courses) .....	8

**RELIGIOUS STUDIES**

Adviser Chairman: **Lester B. Scherer**  
(487-0069)  
History and Philosophy Department

Religion, as a major aspect of human culture, is an object of study for many disciplines, both in the humanities and the social sciences. The Religion minor provides students with an opportunity to examine religion from the point of view of several different departments within the framework of a liberal education. The aim of the program is not to foster any particular doctrine or faith, but to broaden and deepen the student's knowledge and understanding of religion as a human activity.

**Minor (20 semester hours) Non-Teaching**

The Religion minor consists of seven courses, as follows:

**PRE-RELIGIOUS CAREERS CURRICULUM**

Adviser Chairman: **Lester Scherer**  
(487-0069)  
History and Philosophy Department

A comprehensive four-year baccalaureate education is the recommended foundation work in preparing for professional religious leadership careers. In addition, such careers will require a minimum of two to four years of specialized studies in a graduate and/or professional school of religion.

Eastern Michigan University's curriculum for the Bachelor of Arts or Bachelor of Science degree is well-designed to meet the undergraduate, pre-professional preparation requisite for religious careers. Generally, a major should be selected in the humanities or social sciences. The undergraduate program should include selected courses in religion. A minor in religion may be chosen, but is not required for admission to most graduate or professional programs. Recommended as electives are courses in history, literature, philosophy, psychology, sociology, contemporary issues, fine arts and music.

Graduate-level degree programs in religion are differentiated in terms of four alternate study tracks:

1. Programs primarily related to ordination  
M. Div. (B.A./B.S. + 3 or 4 years)  
Th.M. or S.T.M. (M. Div. + 1 year)  
D. Min. (M. Div. + 1 year minimum)
2. Programs in religious education  
M.A. or M.R.E. (B.A./B.S. + 2 years)  
Ed.D. (M.A. or M.R.E. + 2 years minimum)
3. Programs primarily in academic theology  
M.A., M.A.R., or M.T.S. (B.A./B.S. + 2 years)  
Th.D., S.T.D., D.H.L., and Ph.D. (B.A./B.S. + 4 years minimum)
4. Programs in sacred music  
M.S.M. or M.C.M. (B.A./B.S. + 2 years minimum)  
S.M.D., D.C.M., or D.M.A. (M.S.M. or M.C.M. + 2 years minimum)

Students contemplating graduate studies in religion should, at the very earliest opportunity, apprise themselves of the exact requirements for the specific program and school they expect to enter.

**Semester Hours****Required Courses:**

HIS 100 The Comparative Study of Religion ...	3
At least four courses from Group A below .....	12
Two more courses from either Group A or Group B .....	5-6

**Group A**

ANT 338 Anthropology of Religion .....	3
LIT 251 The Bible as Literature .....	3
HIS 301 The Religions of South and East Asia ..	3
HIS 302 Near Eastern and Western Religions ...	3
HIS 303 History of American Religion .....	3
PHI 215 Philosophy of Religion .....	3
PSY 225 Psychology of Religion .....	3
SOC 320 Sociology of Religion .....	3

**Group B\***

FA 107 Art History Survey I .....	3
FA 340 History of Ancient Art .....	3
FA 341 History of Renaissance Art .....	3
FA 420 History of Primitive Art .....	3
FA 426 Medieval Art History .....	3
ANT 135 Cultural Anthropology .....	3
LIT 204 American Indian Myths, Tales, and Legends .....	3
LIT 316 English Literature, 1500-1600 .....	3
LIT 351 Folk Literature: Gods and Heroes .....	3
LIT 408 American Literature, 1608-1830 .....	3
CEN 301 Mythology (given in English) .....	3
HIS 327 Europe in the Making, 500-1300 .....	3
HIS 330 Europe in the Renaissance and Reformation .....	3
PHI 260 Existentialism .....	3

Note: No more than three of the seven courses in the minor may be chosen from a single discipline. (Anthropology, history, philosophy, and sociology are considered as four separate disciplines, even though they are combined administratively in two departments.)

\*Certain independent study courses and graduate courses may be taken under Group B by students who meet department requirements and who have the approval of the Religious Studies adviser.

# GENERAL HUMANITIES PROGRAM

Advisor Chairperson: Ira M. Wheatley, Head  
Department of History and Philosophy

General Humanities courses offer an introduction to the liberal arts and satisfy the University's Basic Studies requirements in history, religion, philosophy, English literature, art, music, and drama. The courses may be taken by all students, regardless of their major. (See Basic Studies Requirements, page 32).

The courses ask the question, "What can we learn about ourselves and our own culture by studying other cultures remote in time or place?" Courses address this question in a variety of ways—by comparing contemporary America with a past culture, by concentrated study of a past period, by surveying an important cultural legacy, or by considering a problem or issue of contemporary significance. Most courses are interdisciplinary and taught by specialists from various departments. Classes meet in lectures and small discussion groups.

Humanities courses satisfy certain requirements for a major or minor in English, history or philosophy.

**English Major:** Students selecting the group major in English and American literature and language; the group major in literature, language, speech and dramatic arts; or the minor in language and literature will be given 3-6 hours in substitution for 3-6 hours of literature. Students choosing the major in literature, or the minor in children's literature will be given six hours in substitution for six hours of literature.

After completing twelve hours in the freshman humanities program, students will be permitted to enroll in English courses for which two courses in literature are prerequisites.

**History Major or Minor; Social Science Major:** A student who completes two humanities course in which members of the History Department have been instructors is understood to have completed the equivalent of two 100 level courses toward the history major or minor, or the social science major.

**Philosophy Major or Minor:** Students who have completed two humanities courses in which members of the philosophy section have been instructors may enroll in any course for which Philosophy 100 is a prerequisite.

Students who have taken PHI 122 American Studies: Success and the Pursuit of Happiness in the 19th Century America, may enroll in:

PHI 240 American Philosophy

PHI 270 Philosophical Issues in Literature

Students who have taken PHI 124 The Age of Wagner, may enroll in:

PHI 260 Existentialism

PHI 270 Philosophical Issues in Literature

Students wishing to apply hours completed in the humanities program toward a philosophy major or minor should meet with the chairman of the philosophy section to determine the adjustment of credit.

## SOCIAL SCIENCE

Adviser Chairperson, Ira Wheatley  
(487-1018)  
History and Philosophy Department

### Major (36 semester hours)

The social science major may be elected either with or without the teaching credential. Students who wish to teach at the level of 9th grade or above should take a minor in one of the five social sciences. The minor field will then be excluded from the social science major, thus releasing 6-12 semester hours to be distributed among the other four social sciences. Students who plan to teach in middle schools or junior high schools (through 8th grade) may wish to consider other minors, such as those offered in the Department of English Language and Literature.

At least 36 semester hours is required, distributed as follows:

#### Semester Hours

History .....	12
101 or 102 History of Western Civilization .....	3
123 Major Trends in U.S. History .....	3
103 History of Non-Western Civilization or	
105 The World in the 20th Century .....	3
• Elective (300 level or above) .....	3
Economics .....	6
200 The American Economy or	
201 Principles of Economics I .....	3
• Elective (300 level or above) .....	3
Geography .....	6
110 World Regions .....	3
• Elective (300 level or above, group III) .....	3
Political Science .....	6
112 American Government or	
202 State and Local Government .....	3
• Elective (300 level or above) .....	3
Sociology .....	6
105 Introductory Sociology .....	3
• Elective (300 level or above) .....	3

Note: Students majoring in social science on a secondary teacher's certificate program will take, in addition, HIS 481 Teaching of Social Studies.

Students may not use HIS 100 The Comparative Study of Religion for history credit on the social science major.

Students in the elementary, library science, or special education curricula should see page 225 for an elementary social science group major or minor.

## COURSES

**CEN 104/HIS 104 Men of Power: Ancient and Modern**  
(Formerly HUM 104).

Three sem hours

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. The course is team taught by a member of the History Department and a classicist. (This course satisfies one literature or one history requirement.)

**CEN 106/LIT 106 Rome and America. Six sem hours**  
(Formerly HUM 101)

An investigation into problems and pressures comparing the people and culture of Ancient Rome and Modern America. Among the subjects considered are individual hopes and ideals, religious beliefs, and ideas about death, government, morality, love, and sex. The course is team taught by a member of the English Department and a classicist and satisfies two literature requirements.

**HIS 107/LIT 107 Society in Crisis: 1848 and 1968.**(Formerly HUM 102) **Six sem hours**

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. This course is team taught by a member of the English Department and of the History Department. (This course satisfies one literature and one history requirement.)

**EA 121/HIS 121 Islam: The Golden Age. Three sem hours**  
(Formerly HUM 121)

An examination of the cultural accomplishments of Syria, Arabia, Persia, Egypt, North Africa, Spain and Sicily in the medieval period and a consideration of their source, the Muslim religion. The course includes readings in translation from Islamic literature, films, music and slide presentations. It is team taught by an art historian and a specialist in medieval Islam from the History Department. (This course satisfies one history or one art requirement.)

**PHI 122/LIT 122 American Studies: Success and the Pursuit of Happiness in 19th Century America.**(Formerly HUM 122) **Three sem hours**

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. The reading includes such authors as Benjamin Franklin, H.D. Thoreau, William James, Mark Twain, and Horatio Alger. The course is team taught by a member of the English Department and a member of the Philosophy Department. (This course satisfies one philosophy or one literature requirement.)

**PHI 124/LIT 124 The Age of Wagner. Three sem hours**  
(Formerly HUM 124)

An exploration of the personal, intellectual, and artistic influences on Wagner's life and work and a consideration of artists influenced by Wagner. The course is team taught by a member of the English Department and a member of the Philosophy Department. (This course satisfies one philosophy or one literature requirement.)

**LIT 126/SPH 126 The Age of Shakespeare. Three sem hours**  
(Formerly HUM 126)

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. This course is team taught by a member of the English Department and a member of the Dramatic Arts Department. (This course satisfies one literature or one dramatic arts requirement.)

**FA 127/HIS 127/MUS 127/SPH 127 The Splendid Centuries of Austria. Three sem hours**

(Formerly HUM 123)

A survey of the art, music, and literature of Austria from the seventeenth to early twentieth 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. The course will be 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.)

**HIS 128/LIT 128 Russia in the Age of Tolstoy and Dostoevsky. Three sem hours**

(Formerly HUM 125)

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. The course is team taught by a member of the English Department and a member of the History Department. (This course satisfies one literature or one history requirement.)

**• PHI 150/LIT 150 Humanity and Technology.****Three sem hours**

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.)

**FA 151/HIS 151 Reason and Revolution. Three sem hours**  
(Formerly HUM 151)

An examination of the transition in political history, philosophy, art, literature, and music from Puritan England and Louis XIV'S France to Napoleon. The course is team taught by members of the Art and History Departments. (This course satisfies one art or history requirement.)

**HIS 152/LIT 152 From the Gay Nineties to the Crash.**(Formerly HUM 152) **Three sem hours**

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. This course is team taught by a member of the History Department and a member of the English Department. (This course satisfies one history or one literature requirement.)

**CEN 153/FA 153 From the Middle Ages to the Renaissance: Sacred and Profane Love. Three sem hours**

(Formerly HUM 153)

A study of the transition from the Middle Ages to the Renaissance with special emphasis on the themes of sacred and profane love as treated in literature and art, focusing on the role of the patron and analyzing the allegorical method as developed in classical times and modified through the Middle Ages and Renaissance. This course is team taught by a member of the Art Department and a member of the Department of Foreign Languages. (This course satisfies one literature or art requirement.)

## MATHEMATICS AND COMPUTER SCIENCE

Department Head: James H. Northey

Professors: Larry L. Badii, Donald A. Buckeye, John L. Ginther, Delia Koo, Kurt F. Lauckner, Richard W. Marshall, James H. Northey, Manda B. Suryanarayana, Nelly S. Ullman

Associate Professors: Andrew C. Dempster, Bob L. Goosey, Alan Heezen, Hartmut F.W. Hoft, Paul E. Howard, Joanne S. Rankin, John H. Remmers, Enoch C. Tse

Assistant Professors: John K. Cooper, Christopher E. Hee, David C. Johnson, Mohammad Rafiq, Mary K. Rhodes, Sushil K. Sachdev, James R. Walter, Michael Zeiger

The Department of Mathematics and Computer Science administers programs in Mathematics and in Computer Science.

The program in mathematics is designed to give majors certain basic courses, ensure a broad background and yet allow enough electives for the student to adapt his program to one of the various phases of mathematics with which he or she may be concerned such as junior and senior high school teaching, statistics, engineering, the physical sciences or graduate work in pure or applied mathematics.

Students desiring a major in mathematics may choose from the following alternatives:

1. The regular major in mathematics (see page 136).
2. The special major available to students on elementary teaching, library science and special education curriculums (see page 137).
3. The applied science curriculum (see page 151).

Students desiring a minor in mathematics may choose from the following alternatives:

1. The regular minor in mathematics (see page 137).
2. The special minor available to students on elementary teaching, library science and special education curriculums (see page 137).

The group major and minor in general science also provide opportunities for incorporating mathematics into a regular program of study (see page 152).

Students who desire acceleration or advanced standing in the mathematics sequence should consult the mathematics adviser, Bob L. Goosey.

The program in computer science offers training to enable entry and continued growth in the rapidly changing and expanding field of computer science. It consists of a 30-hour major (see page 136) or a 21-hour minor (see page 136). The computer science major prepares graduates for careers in the areas of computer systems analysis, software development for large and small systems, and applications programming. The computer science minor accommodates students in mathematics, the physical and social sciences, and others concerned with information processing applications. In-service employees in industrial or research information-processing environments can take specific courses to improve their professional competency.

Courses are offered in the areas of programming languages and methodology, assembly language, data structures, computer organization, systems programming, and such applications areas as numerical analysis and computer graphics.

### PHI 155/LIT 155 Narrative in Literature and Film.

(Formerly HUM 201) **Three sem hours**

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. This course is taught by a member of the English Department and a member of the Philosophy Department and satisfies one literature requirement. Students may not earn credit in both this course and LIT 300 Narrative in Literature and Film.

Prereq: One Humanities course.

### 179 Special Topics in Humanities. **Three sem hours**

This special topics course will be used to teach some aspects of the humanities that would not regularly be explored. A new course may be taught on an experimental basis using this heading. (This course may satisfy various basic studies requirements, depending on the course offered. It will carry one of the following prefixes: HIS, PHI, FA, MUS, SPH, CEN, or LIT.)

### CEN 181/FA 181/LIT 181 The Legacy of Greece.

(Formerly HUM 181) **Three sem hours**

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. The course is taught by a classicist and a member of the English Department or the Art Department. (This course satisfies one literature or one art requirement.)

### FA 182/HIS 182 The Legacy of China. **Three sem hours**

(Formerly HUM 182)

A survey of China's history of achievements in polity, literature, art, and philosophy, illustrating China's influence on human history and culture. The course includes readings in translation from Chinese literature and feature films and slides. This course is team taught by a member of the History Department and of the Art Department. (This course satisfies one history or one art requirement.)

## GENERAL REQUIREMENTS

1. No student outside the elementary teaching major or minor may receive credit in courses MTH 104, 105, 107, 108, 118 or 119 after credit for MTH 120 has been earned.

- Students majoring in mathematics or computer science must complete at least nine semester hours credit and minors must complete at least six semester hours credit in this department from courses numbered 300 or above.
- Majors preparing to teach mathematics in high school must complete a course in the teaching of mathematics in addition to the requirements for a major.

## GRADUATE STUDY

The Mathematics and Computer Science Department offers graduate work leading to the master's degree in mathematics. For descriptions of graduate courses and programs in the Mathematics and Computer Science Department, please consult the Graduate Catalog.

## COURSES

### MATHEMATICS COURSES

New courses are identified with a bullet •.

**MTH 104 Intermediate Algebra.** Three sem hours  
A review of elementary algebra and a continuation into the study of functions, graphs and quadratic equations.

Prereq: One year of high school algebra. Students who have completed more than one year of high school algebra should elect MTH 105 College Algebra or MTH 120 Calculus I.

**MTH 105 College Algebra.** Three sem hours  
Properties of the real numbers; equations and inequalities; functions; sequences; mathematical induction; polynomial, rational, exponential and logarithmic functions; introduction to probability.

Prereq: One and one half to two years high school algebra or MTH 104 Intermediate Algebra.

**MTH 107 Plane Trigonometry.** Two sem hours  
An elementary course in plane trigonometry. Students who have good records in high school courses including trigonometric identities, trigonometric equations and oblique triangles, should not take the course.

Prereq: One and one-half years of high school algebra or MTH 104 Intermediate Algebra, and one year of plane geometry.

**MTH 108 Functional Mathematics I.** Three sem hours (formerly MTH 101)

An introductory course to acquaint the student with the principal ideas of mathematics. Includes sets, logic, study of integers, rational and real numbers, number bases, exponents and logarithms and axiomatic geometry. Emphasis is placed on the concepts involved. (Not intended to provide a direct preparation for MTH 104.)

**MTH 109 Functional Mathematics II.** Three sem hours (formerly MTH 102)

Review and extension of the real numbers to a study of the complex numbers, elementary number theory, logic and nature of proof, basic probability and statistics and informal geometry. (Open only to prospective elementary teachers.)

Prereq: MTH 108 Functional Mathematics I.

**MTH 110 Algebra for Elementary Teachers.**

Three sem hours  
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 Functional Mathematics I.

**MTH 118 Mathematical Analysis for Social Sciences I.**

Three sem hours

Solutions of linear equations and inequalities, vectors and matrices, linear programming, sets, probability. Emphasis on applications.

Prereq: Two years of high school algebra or MTH 104 Intermediate Algebra or equivalent. Students who feel weak in algebra are encouraged to elect MTH 104 Intermediate Algebra or MTH 105 College Algebra first.

**MTH 119 Mathematical Analysis for Social Sciences II.**

Three sem hours

Functions, differentiation of algebraic functions, optimization, exponential and logarithmic functions and their derivatives, an introduction to the definite integral. Emphasis on problem set up and interpretation and applications.

Prereq: MTH 118 Mathematical Analysis for Social Sciences I.

**MTH 120 Calculus I.**

Four sem hours

Calculus of functions of a single variable; introduction to differential calculus, including limits, derivatives, techniques of differentiation, the Mean Value Theorem, and applications of differentiation to graphing, optimization, rates. Introduction to integral calculus, including indefinite integrals, the definite integral, the Fundamental Theorem of Integral Calculus, and applications of integration to area and volume computation. Prereq: Students having 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 College Algebra first (and in MTH 107 Plane Trigonometry if not taken in high school).

**MTH 121 Calculus II.**

Four sem hours

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, and polar coordinates.

Prereq: MTH 120 Calculus I or equivalent.

**MTH 122 Elementary Linear Algebra.** Two sem hours

Vectors and matrices, operations on matrices, determinants, systems of linear equations, linear independence, linear transformations, applications.

Prereq: Students having "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 College Algebra first (and in MTH 107 Plane Trigonometry if not taken in high school).

**MTH 140 Geometry for Elementary Teachers.**

Three sem hours

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 Functional Mathematics I.

**MTH 177, 178, 179 Special Topics in Mathematics or Computer Science.** One, two, and three sem hours

These special topics courses will be used to teach some aspects of mathematics or computer science at an elementary level that would not be regularly offered. A new course may be taught on an experimental basis with this offering. This course does not count on a regular major or minor in mathematics or computer science.

**MTH 206 College Algebra and Trigonometry for Elementary Teachers. Four sem hours**

Basic algebraic and trigonometric concepts. Real and complex number systems, solutions of equations and inequalities, graphs of functions, determinants, sequences and series, permutations, combinations and probability. (Open only to prospective elementary teachers.)

Prereq: One year high school algebra, plane geometry and MTH 109 Functional Mathematics II or MTH 110 Algebra for Elementary Teachers or MTH 301 Advanced Topics in Elementary Mathematics.

**MTH 223 Multivariable Calculus. Four sem hours**

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.

Prereq: MTH 121 Calculus II and MTH 122 Elementary Linear Algebra or equivalent (MTH 122 may be taken concurrently.)

**MTH 301 Advanced Topics in Elementary Mathematics. Three sem hours**

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 Functional Mathematics II or MTH 110 Algebra for Elementary Teachers or MTH 140 Geometry for Elementary Teachers.

**MTH 306 Teaching of High School Mathematics. Three sem hours**

Consideration of the mathematics program in the high school, its organization and content, methods of teaching and learning. This Group IV methods class does not count on the major or minor. Not open to freshmen or sophomores or students on academic probation.

Prereq: MTH 120 Calculus I.

**MTH 319 Mathematical Modeling. Three sem hours**

Selected topics from graph theory, combinatoric theory, probability theory and theory of finite differences. The emphasis will be on the modeling and solution of realistic problems using these mathematical tools.

Prereq: MTH 120 Calculus I and MTH 122 Elementary Linear Algebra.

**MTH 325 Differential Equations and Vector Analysis. Three sem hours**

An applicable course introducing the fundamental ideas of vector analysis and differential equations. Vector fields, divergence and curl, line and surface integrals, Stokes' and Gauss' Theorems. Differential equations of first degree and first order, linear differential equations with constant coefficients, solutions in power series, applications.

Prereq: MTH 223 Multivariable Calculus.

**MTH 341 College Geometry. Three sem hours**

Axiomatic terms and concepts (finite geometries); non-metric geometry (affine) including ratio, cross ratio, harmonic sets; augmented Euclidean plane (projective) including homogeneous coordinates, duality, applications of vector dot and cross product, conics using polar vector algebra with inversion, poles and polars, hierarchies of geometries including space-time; brief look at history of Euclidean and non-Euclidean geometry including Klein model of hyperbolic plane with applications of poles—polars, etc.

Prereq: MTH 122 Elementary Linear Algebra.

**MTH 342 Elementary Space-Time Geometry. Two sem hours**

Provides study in depth of a geometry other than Euclidean, but which has the same basic concepts of metric, angles, invariants, circle, transformation, etc. Different coordinate systems and parametrization. Both synthetic and analytic treatment leading to discussion of Special Relativity in which the geometry allows for design and solutions of standard problems involving ambiguity of simultaneity, shrinkage of time and space, addition of velocities.

Prereq: MTH 120 Calculus I.

**MTH 370 Probability and Statistics I. Four sem hours**

Basic concepts of probability; expectation, variance, covariance distribution functions and their application to statistical tests of hypothesis; bivariate, marginal and conditional distributions; treatment of experimental data. Applications to problems in science and/or social science are emphasized.

Prereq: MTH 121 Calculus II.

**MTH 381 The Teaching of Mathematics K-6. Three sem hours**

Learning to teach children in the elementary grades (K-6) the understandings 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 Functional Mathematics I and junior standing.

**MTH 387 Cooperative Education in Mathematics. Three sem hours**

Four to six months of full-time employment at an industrial firm chosen to provide practical experience in mathematics and the application of mathematics to industrial problems. The Cooperative Program consists of one or two work experiences (MTH 387 and MTH 487) alternated with full-time attendance at the University. A written report is required at the end of each employment period. Application of credit toward the major in mathematics is to be given only with departmental approval.

Prereq: Junior or senior majoring in mathematics, MTH 223 Multivariable Calculus, admittance to program by application only, departmental approval. Graded Credit/No Credit.

**MTH 400 History of Mathematics. Three sem hours**

Designed to show students how the subjects they are to teach have developed. Students have access to a large collection of books in the library.

Prereq: MTH 121 Calculus II.

**MTH 403 Current Research in Elementary School Mathematics. Three sem hours**

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 Advanced Topics in Elementary Mathematics and MTH 381 Teaching of Mathematics K-6.

**MTH 411 Modern Algebra with Applications. Three sem hours**

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 Calculus II and MTH 122 Elementary Linear Algebra.

**MTH 416 Linear Algebra.** Three sem hours  
Vector spaces, linear transformations, eigenvalues, inner product spaces, principal axis theorem, applications.  
Prereq: *MTH 121 Calculus II and MTH 122 Elementary Linear Algebra.*

**MTH 418 Applied Linear Algebra** Three sem hours  
Discussion of mathematical algorithms which make wide use of linear algebra methods. The emphasis will be in their implementation in computer systems and their applications to real life problems. Topics covered include numerical solution of simultaneous linear equations, the simplex algorithm, linear programming and their applications.  
Prereq: *MTH 120 Calculus I, MTH 122 Elementary Linear Algebra, CSC 137 Introduction to Computer Programming or permission of the department.*

**MTH 420 Introduction to Analysis.** Three sem hours  
Real numbers, elementary topology of the real line, sequences and series, continuity, uniform continuity, differentiation, integration, sequences and series of functions.  
Prereq: *MTH 223 Multivariable Calculus.*

**MTH 425 Mathematics for Scientists.** Three sem hours  
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 Multivariable Calculus.*

**MTH 436 Numerical Analysis.** Three sem hours  
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 Multivariable Calculus and CSC 137 Introduction to Computer Programming or permission of the department.*

**MTH 471 Probability and Statistics II.** Three sem hours  
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 Multivariable Calculus, MTH 370 Probability and Statistics I, and CSC 137 Introduction to Computer Programming or permission of the department.*

**MTH 477 Special Topics in Mathematics.** Two sem hours  
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 permission of the department.*

**MTH 480 Honors Course in Mathematics.** Two sem hours  
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 in Mathematics.** Three sem hours  
Four to six months of full-time employment at an industrial firm chosen to provide practical experience in mathematics and the application of mathematics to industrial problems. The Cooperative Program consists of one or two work experiences (MTH 387 and MTH 487) alternated with full-time attendance at the University. A written report is required at the end of each employment period. Application of credit toward the major in mathematics is to be given only with departmental approval.  
Prereq: *MTH 387 Cooperative Education in Mathematics, admittance to program by application only, departmental approval. Graded Credit/No Credit.*

**MTH 497, 498, 499 Independent Study in Mathematics.** One, two and three sem hours  
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 permission of the department.*

## COMPUTER SCIENCE COURSES

New courses are identified with a bullet •

**CSC 136 Computers for the Non-Specialist.** Three sem hours  
(formerly Survey of Computer Science)  
A survey of computer science for non-specialists who wish to learn the capabilities and applications of digital computers. Representation of information, how computers work, and how to communicate with computers via programming languages. The student will learn to write programs in the BASIC language, using both the University's time-shared computer system and the latest in "personal computers." Applications to the gathering and analysis of information, simulation, visual and voice communication, artificial intelligence, and computer based instruction will be examined. This course counts toward the Computer Science minor if taken prior to or concurrently with CSC 137 or CSC 237. Not open to computer science majors.

**CSC 137 Introduction to Computer Programming.** Three sem hours  
An introductory course for persons wishing to learn programming and applications of computers. Appropriate for computer science majors and minors, as well as students of the physical sciences, social sciences, humanities, and other areas. Using the FORTRAN language, students develop and run programs to solve a variety of problems.  
Prereq: *One and one-half years of high school algebra. (Credit will be given for only one of CSC 137 Introduction to Computer Programming or CSC 237 Computer Programming and Numeric Methods.)*

**CSC 237 Computer Programming and Numeric Methods.** Three sem hours  
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.  
Prereq: *MTH 121 Calculus II. (May be taken concurrently.) (Credit will not be given for more than one of CSC 137 Introduction to Computer Programming and CSC 237 Computer Programming and Numeric Methods.)*



**CSC 238 Topics in Computer Science.** Three sem hours  
A second course in computer programming. Survey of selected topics in computer science, including techniques of program design and testing, data structures, sorting and searching techniques, and string manipulation. Using a higher level block-structured language such as PASCAL, students will develop and run several programs. Principles of structured programming, documentation, and good programming style will be emphasized.

Prereq: CSC 137 Introduction to Computer Programming, or CSC 237 Computer Programming and Numeric Methods.

**CSC 239 Assembly and Machine Language Programming.** Three sem hours

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 Introduction to Computer Programming or CSC 237 Computer Programming and Numeric Methods or ORI 219 COBOL Programming.

**CSC 330 Discrete Mathematical Structures.**

Three sem hours

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 Topics in Computer Science and CSC 239 Assembly and Machine Language Programming (CSC 239 may be taken concurrently.)

**CSC 334 Data Structures.**

Three sem hours

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 Topics in Computer Science and CSC 239 Assembly and Machine Language Programming.

**CSC 337 Programming Languages.**

Three sem hours

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.

Prereq: CSC 238 Topics in Computer Science and CSC 239 Assembly and Machine Language Programming.

**CSC 338 Computer Organization.**

Three sem hours

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 Topics in Computer Science and CSC 239 Assembly and Machine Language Programming.

**CSC 388 Cooperative Education in Computer Science.**

Three sem hours

Four to six months of full-time employment at an individual firm chosen to provide practical experience in computer science. The Cooperative Program in Computer Science consists of one or two work experiences (CSC 388 and CSC 488) alternated with full-time attendance at the University. A written report is required at the end of each employment period. Application of credit toward the computer science major is given only with departmental approval.

Prereq: Junior or senior majoring in Computer Science, any 300 level course in Computer Science, admittance to program by application, departmental approval. Graded Credit/No Credit.

**CSC 430 Compiler Construction.**

Three sem hours

Review of programming language structures, translation, loading, execution and storage allocation. Compilation of simple statements. Organization and over-all design of a compiler. Use of compiler writing languages.

Prereq: CSC 334 Data Structures and CSC 337 Programming Languages.

**CSC 431 Systems Programming.**

Three sem hours

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 Data Structures, CSC 337 Programming Languages and CSC 338 Computer Organization.

**CSC 432 Switching Theory.**

Three sem hours

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 Discrete Mathematical Structures and CSC 338 Computer Organization.

**CSC 433 Computer Operating Systems.**

Three sem hours

Computer operating systems functions and concepts. Processor allocation: multiprogramming and scheduling algorithms. Memory tasks and data management. The deadlock problem. Virtual memory; allocation strategies and analysis of their algorithms. Design, implementation and protection of I/O files. Survey of available computer operating systems.

Prereq: CSC 334 Data Structures and CSC 338 Computer Organization.

**CSC 435 Introduction to Microprocessors.**

Three sem hours

This course teaches the fundamentals of small system software development as it applies to microprocessors and mini-computers. In particular, three major areas are covered: 1) Introduction to microprocessors and peripheral hardware; 2) Software and software development; 3) Applications. Students will have access to both microcomputers and a mini-computer to gain first hand knowledge of this field.

Prereq: CSC 338 Computer Organization or departmental permission.

**CSC 438 Computer Graphics.**

Three sem hours

Display memory, generation of points and vectors. Interactive graphics. Analog storage of images. Pattern recognition by features, syntax tables, random nets. Data structures and graphics software. Three-dimensional mathematics. Computer-aided design and instruction, and animated movies.

Prereq: CSC 334 Data Structures. (CSC 338 Computer Organization and CSC 431 Systems Programming recommended.)

**CSC 478 Special Topics in Computer Science.**

Two sem hours

This is a course for seniors in computer science. The topics covered will depend upon the interests of the student and the instructor guiding the work. The work will generally consist of a semester project and a final report.

Prereq: Senior standing in computer science and permission of the department.

**CSC 488 Cooperative Education in Computer Science.**

**Three sem hours**

Four to six months of full-time employment at an individual firm chosen to provide practical experience in computer science. The Cooperative Program in Computer Science consists of one or two work experiences (CSC 388 and CSC 488) alternated with full-time attendance at the University. A written report is required at the end of each employment period. Application of credit toward the computer science major is to be given only with departmental approval.

*Prereq: CSC 388 Cooperative Education in Computer Science, admittance to program by application only, departmental approval. Graded Credit/No Credit.*

**CSC 497, 498, 499 Independent Study in Computer Science.**

**One, two, and three semester hours**

A report or project on an approved subject in the field of computer science under the guidance of the staff of the Department of Mathematics and Computer Science.

*Prereq: Undergraduate grade point average in computer science 3.0 or above and permission of the department.*

**COMPUTER SCIENCE**

Adviser Chairperson, **Kurt Lauckner**  
(487-1290)

Department of Mathematics and Computer Science

The computer science major prepares graduates for the areas of application programming and computer systems analysis, with emphasis in software development for large and small systems. Industrial ties are maintained through the Cooperative Education aspect of our program.

**Computer Science Major (30 semester hours), (Non-Teaching)**

	<b>Semester Hours</b>
<b>Required Courses</b> .....	<b>21</b>
CSC 137 Introduction to Computer Programming or CSC 237 Computer Programming and Numeric Methods .....	3
CSC 238 Topics in Computer Science .....	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
<b>Electives - any two of the following courses</b> .....	<b>6</b>
CSC 430 Compiler Construction .....	3
CSC 431 Systems Programming .....	3
CSC 432 Switching Theory .....	3
CSC 433 Computer Operating Systems .....	3
CSC 435 Introduction to Microprocessors .....	3
MTH 436 Numerical Analysis .....	3
CSC 438 Computer Graphics .....	3

*Note: If CSC 137 is taken, it is recommended that MTH 436 be taken as one of the above electives.*

One mathematics course chosen as follows: .....	3
To be selected from the mathematics elective list given below under "Additional Requirements" and not used to fulfill any of the additional requirements	
<b>Total</b> .....	<b>30</b>

<b>Additional Requirements</b> .....	<b>17</b>
MTH 120 Calculus I .....	4
MTH 121 Calculus II .....	4
MTH 122 Elementary Linear Algebra .....	2
MTH 223 Multivariable Calculus .....	4
<b>Mathematics Electives:</b>	
MTH - 319, 325, 370, 418, 425, 471 .....	3

**Computer Science Minor (21 semester hours) (Non-Teaching)**

The computer science minor accommodates students in mathematics, the physical and social sciences, and others concerned with information processing applications.

	<b>Semester Hours</b>
<b>Required Courses</b> .....	<b>12</b>
CSC 137 Introduction to Computer Programming or CSC 237 Computer Programming and Numeric Methods .....	3
CSC 238 Topics in Computer Science .....	3
CSC 239 Assembly and Machine Language Programming .....	3
CSC 330 Discrete Mathematical Structures .....	3
<b>Electives - any three of the following courses</b> .....	<b>9</b>
CSC 136 Computers for the Non-Specialist .....	3
CSC 334 Data Structures .....	3
CSC 337 Programming Languages .....	3
CSC 338 Computer Organization .....	3
CSC 430 Compiler Construction .....	3
CSC 431 Systems Programming .....	3
CSC 432 Switching Theory .....	3
CSC 433 Computer Operating Systems .....	3
CSC 435 Introduction to Microprocessors .....	3
MTH 436 Numerical Analysis .....	3
CSC 438 Computer Graphics .....	3

*Note: CSC 136 may be counted only if taken prior to or concurrently with CSC 137 or CSC 237.*

<b>Total</b> .....	<b>21</b>
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Any student interested in computer science applications in business may substitute courses from the College of Business with the approval of the computer science adviser.

All of the above courses are listed in the Department of Mathematics and Computer Science course offerings.

Students seeking further information about this major or minor should consult with **Kurt F. Lauckner** of the Department of Mathematics and Computer Science.

Please note the **General Requirements** of the Department of Mathematics and Computer Science listed on page 131.

**MATHEMATICS**

Adviser Chairperson, **Richard W. Marshall**  
(487-1296)

Department of Mathematics and Computer Science

**Major (30 semester hours)**

	<b>Semester Hours</b>
<b>Required Courses</b> .....	<b>18</b>
MTH 120 Calculus I .....	4
MTH 121 Calculus II .....	4
MTH 122 Elementary Linear Algebra .....	2
MTH 223 Multivariable Calculus .....	4
MTH 370 Probability and Statistics I .....	4

<b>Teaching Major – Additional Requirements</b> . . . . .	12
MTH 341 or MTH 342 (Geometry) . . . . .	2-3
CSC 137 or CSC 237 (Computer Programming) . . . . .	3
<b>Electives in mathematics from the following list</b> . . . . .	7-6
MTH – 319, 325, 341 or 342, 400, 411, 416, 418, 420, 425, 436, 471	

In addition, teaching majors must take MTH 306 Teaching of High School Mathematics. This course does not count as a part of the 30 hour teaching major.

<b>Non-Teaching Major – Additional Requirements</b> . . . . .	12
<b>Electives in mathematics from the following list</b> . . . . .	12
MTH – 319, 325, 341 or 342 (not both), 411, 416, 418, 420, 425, 436, 471	

In addition, non-teaching majors must take CSC 137 Introduction to Computer Programming or CSC 237 Computer Programming and Numeric Methods or demonstrate equivalent knowledge of one of these courses. Neither CSC 137 or CSC 237 counts as part of the 30 hour non-teaching major.

Students majoring in business, the social sciences, biological science or physical science and also majoring in mathematics should consult with a mathematics adviser concerning the most appropriate courses. Courses MTH – 411, 416, and 420 are suitable for any major and are highly recommended as preparation for graduate study.

The following suggested mathematics courses may serve as a general guide:

- Business MTH – 325, 418, 436, 471
- Economics MTH – 325, 418
- Biology MTH – 418, 471
- Physics MTH – 325, 416, 418, 425, 436
- Chemistry MTH – 325, 418, 425, 436
- Psychology MTH – 418, 471

It is expected that all mathematics majors other than teaching mathematics majors and the double majors indicated above, will normally exceed the thirty hour minimum requirement.

Students seeking further information about this major should consult with **Richard W. Marshall** of the Department of Mathematics and Computer Science.

Students who desire acceleration or advanced standing should consult with **Bob L. Goosey** of the Department of Mathematics and Computer Science.

Please note the *General Requirements* of the Department of Mathematics and Computer Science on page 131.

**Minor (20 semester hours)**

	<b>Semester Hours</b>
<b>Required Courses</b> . . . . .	13
MTH 120 Calculus I . . . . .	4
MTH 121 Calculus II . . . . .	4
MTH 122 Elementary Linear Algebra . . . . .	2
CSC 137 Introduction to Computer Programming or CSC 237 Computer Programming and Numeric Methods . . . . .	3

<b>Teaching Minor – Additional Requirements</b> . . . . .	7
Electives from MTH 105, MTH 107 . . . . .	0-3
MTH 341 or MTH 342 (Geometry) . . . . .	2-3
Electives in mathematics from the following list . . . . .	5-1
MTH – 223, 319, 325, 341 or 342, 370, 400, 411, 416, 418, 420, 425, 436, 471	

<b>Non-Teaching Minor – Additional Requirements</b> . . . . .	7
Electives from MTH 105, MTH 107 . . . . .	0-3
Electives in mathematics from the following list . . . . .	7-4
MTH – 223, 319, 325, 341, 342, 370, 411, 416, 418, 420, 425, 436, 471	

Students seeking further information about this minor should consult with **Richard W. Marshall** of the Department of Mathematics and Computer Science.

Please note the *General Requirements* of the Department of Mathematics and Computer Science listed on page 131.

**Major In Mathematics for the Elementary Teaching Certificate (30 semester hours)**  
(This major is administered by the Department of Mathematics and Computer Science.)

	<b>Semester Hours</b>
<b>Required Courses in mathematics</b> . . . . .	19
MTH 108 Functional Mathematics I . . . . .	3
MTH 109 Functional Mathematics II . . . . .	3
MTH 120 Calculus I . . . . .	4
MTH 140 Geometry for Elementary Teachers . . . . .	3
MTH 301 Advanced Topics in Elementary Mathematics . . . . .	3
MTH 403 Current Research in Elementary School Mathematics . . . . .	3
<b>Electives from the following courses</b> . . . . .	11
MTH – 105, 107, 110, 118, 119, 121, 122, 223, 319, 370; CSC – 136, 137, 237; or other mathematics or computer science courses approved by the Department of Mathematics and Computer Science.	

**Note:** MTH 381 Teaching of Mathematics K-6 is required in addition to the 30 hour major. Students seeking further information about this major should consult **John L. Ginther** (487-1296) of the Department of Mathematics and Computer Science.

All of the above courses are listed in the Department of Mathematics and Computer Science course offerings.

Please note the *General Requirements* of the Department of Mathematics and Computer Science listed on page 131.

**Minor in Mathematics for the Elementary Teaching Certificate (20 semester hours)**  
(This minor is administered by the Department of Mathematics and Computer Science.)

	<b>Semester Hours</b>
<b>Required Courses</b> . . . . .	12
MTH 108 Functional Mathematics I . . . . .	3
MTH 109 Functional Mathematics II . . . . .	3
MTH 140 Geometry for Elementary Teachers . . . . .	3
MTH 301 Advanced Topics in Elementary Mathematics . . . . .	3
<b>Additional Requirements</b> . . . . .	8
Either (1) MTH 206 and MTH 120 or (2) MTH 110 and electives approved by the Department of Mathematics and Computer Science.	

**Note:** MTH 381 Teaching of Mathematics K-6 is required of all elementary teachers, and does not apply toward the 20 semester hours required for this minor. Students seeking further information about this minor should consult **John L. Ginther** (487-1296) of the Department of Mathematics and Computer Science.

All of the above courses are listed in the Department of Mathematics and Computer Science course offerings.

Please note the *General Requirements* of the Department of Mathematics and Computer Science listed on page 131.

## MUSIC

Department Head: James B. Hause

Professors: Armand R. Abramson, Carter J. Eggers, Joseph Gurt, James B. Hause, Oscar M. Henry, Maurice I. Laney, Emily B. Lowe, Dady Mehta, Arthur Parris, Alfio V. Pignotti, Max E. Plank, Edward J. Szabo, Mary D. Teal, Mary Ida Yost

Associate Professors: O. Blaine Ballard, Rodney L. Hill, Rachel H. Harley, Anthony Iannaccone, Elaine R. Jacobson, Sylvan S. Kalib, Mary E. Phipps, Robert G. Quayle, Russell D. Reed

Assistant Professors: Evelyn Adelman, C. Nelson Amos, Ernest M. Brandon, Glenda E. Kirkland, J. Whitney Prince, John R. Smith

Instructors: Anne B. Gajda, Willard D. Zirk

The Department of Music offers curriculums leading to the Bachelor of Arts, Bachelor of Music, Bachelor of Music Education, Bachelor of Music Therapy, Bachelor of Science (see pages 143-146) and Master of Arts degrees. The individual programs present music in the context of a broad liberal education, prepare vocal and instrumental teachers for elementary and secondary schools, provide individual and group study in all performance media, offer cultural enrichment to students in all departments and provide training necessary to qualify students for concentrated graduate studies and college teaching.

The Department of Music further offers basic training for musicians interested in professional careers as instrumentalists, singers and conductors, as composers and arrangers, music scholars and librarians, and, in collaboration with other departments, work in dance, radio, television and theatre. A marketing minor is also available to students who have interest in businesses related to music.

The Department of Music is a full member of the National Association of Schools of Music.

Enrollment in any curriculum in music 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 at that time apply for advanced standing in music.

Auditions and examinations will be held during the 1982-83 and 1983-84 academic year on the following days:

Fall Semester	Winter Semester	Spring
November 9, 1982	February 10, 1983	June 15, 1983
	March 25, 1983	
November 15, 1983	February 9, 1984	June 13, 1984
	March 23, 1984	

## MUSIC FEE

All students accepted for private music lessons will be assessed an applied music fee at the following rates:

Music majors:	\$60.00 per semester for all instruction.
Other University students:	\$60.00 per semester for one-hour lesson.
	\$30.00 per semester for half-hour lesson.
Students from public schools and the community, EMU staff and families:	\$90.00 per semester for one-hour lesson.
	\$45.00 per semester for half-hour lesson.

## GRADUATE STUDY

The Music Department offers graduate work leading to the master's degree in music. For descriptions of graduate courses and programs in the Music Department, please consult the Graduate Catalog.

## COURSES

New courses are identified with a bullet •.

### Theory-Literature and History

**MUS 101 Music Theory-Literature I.** Four sem hours  
Integrated theory-literature course dealing with perception, writing, analysis and performance of basic musical materials; stylistic comprehension of music of all periods. For music majors and minors.

Prereq: Permission of the department.

**MUS 102 Music Theory-Literature II.** Four sem hours  
Continuation of Music Theory-Literature I above.

Prereq: MUS 101 Music Theory-Literature I or examination. For music majors and minors.

**MUS 106 Introduction to the Performing Arts.**

Three sem hours

The arts of dance, theatre and music are studied both individually and collectively with the objective of determining their respective elements and of arriving at a better understanding and appreciation of the great works of art in the three fields. The place of these arts in our present day environment and their contribution to a richer life receive special emphasis. Attendance required at specified on-campus performances. (Music, Physical Education, Speech and Dramatic Arts Departments).

Prereq: Non-music majors only.

**MUS 107 Music Appreciation.** Two sem hours

The purpose of the course is to guide 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 is required.

Prereq: Non-music majors only.

• **MUS 127 The Splendid Centuries of Austria.**

(See Humanities Courses, page 130). Three sem hours

**MUS 201 Music Theory-Literature III.** Four sem hours

Continuation of Music Theory-Literature II with more emphasis on harmonic, melodic and compositional techniques of 19th and 20th centuries; creative writing, ear training, comprehensive analysis of music of all periods.

Prereq: MUS 102 Music Theory-Literature II and MUS 202 Functional Piano or their equivalents.

**MUS 202 Music Theory-Literature IV.** Four sem hours

Continuation of Music Theory-Literature III.

Prereq: MUS 201 Music Theory-Literature III.

**MUS 301 History of Music.** Three sem hours

A chronological study of Western music in its historical and cultural setting. Includes recognition of idioms, changing sounds, styles and forms of music in Medieval, Renaissance and Baroque periods, approximately through 1750. Each student surveys the history of his instrument.

Prereq: MUS 202 Music Theory-Literature IV.

**MUS 302 History of Music.** Three sem hours  
A continued chronological study of Western music in its historical and cultural setting, beginning about 1750. Emphasis similar to 301 History of Music but with a strong concentration in contemporary music. Covers Classical, Romantic and present periods.  
Prereq: MUS 301 History of Music.

**MUS 317 Music Composition.** Two sem hours  
Original writing and analysis of music, beginning with the smaller forms. May be repeated for credit.  
Prereq: MUS 202 Music Theory-Literature IV or permission of the department.

**MUS 341 Contrapuntal Techniques.** Two sem hours  
Writing in polyphonic forms with concomitant analysis.  
Prereq: MUS 202 Music Theory-Literature IV.

**MUS 401 Music Theory-Literature V.** Two sem hours  
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 302 History of Music.

**MUS 402 Music Theory-Literature VI.** Two sem hours  
Continuation of 401 Music Theory-Literature V.  
Prereq: MUS 401 Music Theory-Literature V.

**MUS 413 Orchestration.** Two sem hours  
Practical work in setting compositions for full orchestra and various other instrumental ensembles.  
Prereq: 202 Music Theory-Literature IV.

**MUS 414 Band Arranging.** Two sem hours  
Arranging for band; transcription from other media; original composition; analysis of representative work.  
Prereq: Senior standing and permission of the department.

## MUSIC EDUCATION

**MUS 104 Elements of Music.** Two sem hours  
Designed to give the grade teacher singing, music reading and theory experience in the elements of music. It acquaints the student with concepts of rhythm and tonality aiming to develop musical skills and understandings. Lecture: two hours per week. Laboratory: one hour period per week.

**MUS 151 Class Piano.** Two sem hours  
Group instruction for beginners in piano to provide the necessary skills for carrying on a music program in the classroom. For students not specializing in music.

**MUS 152 Class Piano.** Two sem hours  
Continuation of MUS 207 Class Piano with emphasis on the functional aspects of piano playing and elementary piano literature. For students not specializing in music.  
Prereq: MUS 151 Class Piano or its equivalent.

**MUS 211 Basic Brass Class.** One sem hour  
The teaching and playing of trumpet and trombone. Majors and minors only.

**MUS 212 Brass Class.** One sem hour  
The teaching and playing of French horn, euphonium and tuba. Majors and minors only.

**MUS 220 Functional Skills on Classroom Instruments.** Two sem hours  
Group instruction in developing functional skills on classroom instruments such as the recorder, guitar, ukulele, autoharp, Orff instruments, etc. A survey of instructional materials will be included.  
Prereq: MUS 104 Elements of Music or equivalent.

**MUS 224 Recreational Music.** Two sem hours  
To acquaint the music therapy and recreation majors with specific activities, techniques and resources for directing recreational music programs.

**MUS 232 Voice Class.** One sem hour  
Special attention is given to 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.** Two sem hours  
The physiological descriptions and laboratory practice of diction as used in singing.  
Prereq: Permission of the department.

**MUS 241 Percussion.** One sem hour  
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 or minors only.

**MUS 261 Basic String Class.** One sem hour  
The teaching and playing of violin. Majors or minors only.

**MUS 262 String Class.** One sem hour  
Continuation of MUS 261 Basic String Class and teaching and playing of viola.  
Prereq: MUS 261 Basic String Class.

**MUS 263 String Class.** One sem hour  
The teaching and playing of cello and double bass. Majors and minors only.

**MUS 271 Beginning Classical Guitar.** Two sem hours  
Group instruction in classical guitar through the study of standard beginning methods and repertoire.  
Prereq: Permission of department.

**MUS 272 Intermediate Classical Guitar.** Two sem hours  
Group instruction in classical guitar through the study of standard intermediate methods and repertoire.  
Prereq: MUS 271 Beginning Classical Guitar.

**MUS 274 Functional Guitar.** Two sem hours  
The class emphasizes 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 who wish to acquire a basic knowledge of guitar.  
Prereq: Permission of the department.

**MUS 281 Basic Woodwind Class.** One sem hour  
The teaching and playing of clarinet. Majors and minors only.

**MUS 282 Woodwind Class.** One sem hour  
The teaching and playing of flute and saxophone. Majors and minors only.

**MUS 283 Woodwind Class.** **One sem hour**  
The teaching and playing of oboe and bassoon. *Majors and minors only.*

**MUS 320 Elementary Music Education.** **Three sem hours**  
A study of materials and teaching techniques in relation to the interests, characteristics and needs of children in the elementary grades. *Non-majors only.*  
*Prereq: MUS 104 Elements of Music and junior standing.*

**MUS 322 Music Literature for Children.** **Two sem hours**  
A study of those types, forms and styles of vocal and instrumental music of various periods that are especially appropriate for use with children, as well as effective materials and techniques for directing children's listening.  
*Prereq: MUS 104 Elements of Music or its equivalent.*

**MUS 330 Music Education in the Elementary School.** **Three sem hours**  
Includes the teaching techniques of care and development of the child voice, rote songs, rhythmic activities, ear training, listening lessons, creative music, song interpretation and classroom instruments. Various music series designed for grade schools and other materials are used.  
*Prereq: Junior standing. Open to music education majors and minors only. Completion of MUS 254 Functional Piano/A22 Voice or completion of A04 Voice/B22 Piano; completion of MUS 202 Music Theory-Literature IV; corequisite MUS 326 Conducting; satisfactory academic record; faculty approval.*

**MUS 331 Music Education in the Secondary School.** **Three sem hours**  
Includes the study of the following topics: 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; and psychology and philosophy of music education.  
*Prereq: Junior standing. Open to music education majors only. Satisfactory completion of MUS 330 Music Education in the Elementary School. Proficiency in piano and voice required; corequisite MUS 328 Conducting; satisfactory academic record; faculty approval.*

**MUS 332 Instrumental Music in the Public Schools.** **Three sem hours**  
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.  
*Prereq: Junior. Open only to instrumental music education majors and minors. No students on academic probation.*

**MUS 333 Orchestral Methods.** **Three sem hours**  
Designed to assist students in their preparation as orchestra directors; covers special problems relevant to the string orchestra, string ensembles, and to the string curriculum in the secondary schools.  
*Prereq: MUS 332 Instrumental Music in the Public Schools and junior standing. Open only to instrumental music majors. No students on academic probation.*

**MUS 334 Band Methods.** **Three sem hours**  
Designed to assist students in their preparation as band directors in secondary schools; covers charting and drills for marching band; rehearsal procedures and selection of suitable materials for the concert band.  
*Prereq: MUS 332 Instrumental Music in the Public Schools and junior standing. Open to instrumental music education majors. No students on academic probation.*

**EDU 492 Student Teaching.** **Eight sem hours**  
Admission to student teaching requires satisfactory completion of specified curriculums as well as faculty approval through a screening exam. Details are contained in "Statement of Policy Concerning Standards for Admission to Student Teaching in Music" available from the music supervisor of Student Teaching.

**EDU 495 Student Teaching.** **Four sem hours**  
See admission requirements under EDU 492 Student Teaching.

**EDU 496 Student Teaching.** **Four sem hours**  
*Prereq: EDU 495 Student Teaching.*

## Cooperative Education

• **MUS 387 Cooperative Education — Music.** **Three sem hours**  
A cooperative work experience in the field of music.  
*Prereq: Approval of the department.*

## Music Honors

**MUS 490 Honors Course in Music.** **Two sem hours**  
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 27.)*

## Recitals

Each semester in residence the student will be expected to participate in student recitals. These performances may take place in studio classes, informal departmental recitals, or, where the special qualifications are met, in public recitals.

A senior recital to fulfill requirements of graduation must be performed 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.

## Applied Music

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. Prior study with a private teacher must be confirmed by a statement from that teacher to be presented at the 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
Organ	Percussion	Cornet
Violin	Flute	Trombone
Viola	Oboe	Euphonium
Cello	Bassoon	French Horn
String Bass	Clarinet	Tuba

## Principal Instruments

- AMU**  
100 01-04 level For the student who requires additional preparation in his or her principal instrument before entering regular freshman level work. Credit: One-two hours per semester, which cannot apply toward graduation requirements in either music major curriculums.
- 11-22 level Lower level work. Credit: one-four hours per semester for music majors and minors. May be repeated for credit.
- 300 31-62 level Upper level work. Credit: one-four hours per semester for music majors and minors. May be repeated for credit.

The Bachelor of Music Education degree requires 16 semester hours of work on the principal applied music instrument, to be earned through the 100 and 300 series. Eight of the sixteen hours must be completed in upper level studies (300 series). 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. Instrumental music education majors enrolled in applied music will be formed into appropriate small ensembles at the discretion of the applied teacher. The total number of hours spent each week in lessons and small ensembles will be limited to the number of credit hours.

The Bachelor of Music degree requires 32 semester hours of applied music on a principal instrument. At least 24 hours must be achieved in the 300 level to a minimum level of 52.

The Bachelor of Arts and the Bachelor of Science degrees require 12 semester hours of applied music with at least 4 hours at the 300 level. The Bachelor of Music Therapy degree requires 14 semester hours of applied music with at least 6 hours at the 300 level.

All students taking applied music lessons should consult with their music adviser for specific requirements.

\*Guitar does not qualify as a principal instrument in Bachelor of Music Education curriculum. Acceptable for Bachelor of Arts or Bachelor of Science degree with major in music.

## Secondary Instruments

### AMU

100 01-62 series For music minors. Credit: one hour per semester. May be repeated for credit.

**\*MUS 251 Functional Piano. One sem hour**  
A required course for all music majors and minors with no previous piano experience. Embraces a knowledge of keyboard skills necessary both for accompaniment of simple music and for developing musical understanding basic to all course work in music. Majors or minors only.

**\*MUS 252 Functional Piano. One sem hour**  
Continuation of 251 Functional Piano.  
Prereq: MUS 251 Functional Piano or its equivalent.

**\*MUS 253 Functional Piano. One sem hour**  
Continuation of 252 Functional Piano. Stresses keyboard harmony, accompaniment, sight-reading, piano literature and technique.  
Prereq: MUS 252 Functional Piano or its equivalent.

**\*MUS 254 Functional Piano. One sem hour**  
Continuation of 253 Functional Piano. Additional accompaniment experience, keyboard harmony, improvisation, piano literature and techniques.  
Prereq: MUS 253 Functional Piano or its equivalent.

**MUS 305 Keyboard Skills. Two sem hours**  
A course for keyboard students with emphasis on sight reading, harmonization, transposition, improvisation and score reading. Open to keyboard majors and to others by permission of the department.  
Prereq: MUS 101 and MUS 102 Theory-Literature.

**MUS 326 Conducting. Two sem hours**  
Fundamentals of baton technique, score reading and interpretation of instrumental and vocal music.  
Prereq: Junior standing, music major or minor.

**MUS 327 Instrumental Conducting. Two sem hours**  
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 Conducting.

**MUS 328 Choral Conducting. Two sem hours**  
A practical course in choral conducting; baton technique, score analysis, study of technical and musical problems in conducting traditional and contemporary works.  
Prereq: 326 Conducting.

## Large Ensembles

**MUS 131 University Choir. One sem hour**  
An ensemble of advanced singers. Open to all students in the University.  
Prereq: Permission of the department.

**MUS 134 University Women's Chorus. One sem hour**  
Open to all women students.  
Prereq: Permission of the department.

**MUS 135 University Men's Chorus. One sem hour**  
Open to all men students.  
Prereq: Permission of the department.

\*Any break in the continuity of Functional Piano courses will require an audition before resumption of study.

**MUS 136 Madrigal Ensemble. One sem hour**

Chamber music for mixed voices. Open to all students.

Prereq: Permission of the department.

**MUS 248 Orchestra. One sem hour**

Open to all students in the University.

Prereq: Permission of the department.

**MUS 249 Band. One sem hour**

Open to all students of the University. Enrollment in 249 Band requires attendance for the entire semester. Students electing MUS 249 Band may also elect Physical Education PEG 140 Marching Band for one credit.

**MUS 350 Contemporary Chamber Ensemble. One sem hour**

Various mixed ensembles of soloists. Devoted to performance of twentieth-century music, especially of the last fifteen years. Compositions require performers on all instruments, solo voices, and, on occasion, electronic music. Open to all qualified musicians.

Prereq: Permission of the department.

**MUS 351 Collegium Musicum. One sem hour**

Various ensembles of soloists - instrumental, vocal and mixed. Opportunity to perform old and new music infrequently heard. Open to all qualified students.

Prereq: Permission of the department.

**MUS 445 The Opera. Two sem hours**

The history and literature of opera from its inception to the present day as music and theater.

Prereq: Voice major or permission of the department.

**MUS 448, 449 Opera Workshop. One and two sem hours.**

A laboratory-performance course which will deal with performance of opera scenes and, when feasible, complete works. The musical, technical and dramatic aspects of production will be stressed.

Prereq: Permission of the department.

**PEG 140 Marching Band. One sem hour**

(See Physical Education, page 201).

## Small Ensembles

**MUS 244 Jazz Ensemble. One sem hour**

Performance class dealing with the elements of jazz arrangement, improvisation, and ensemble techniques with special emphasis on its function in music education.

Prereq: Permission of the department.

**MUS 245 Brass Ensemble. One sem hour**

Chamber music for brass. Open to all students.

Prereq: Permission of the department. Non-major only.

**MUS 246 String Ensemble. One sem hour**

Chamber music for strings. Open to all students.

Prereq: Permission of the department. Non-major only.

**MUS 247 Woodwind Ensemble. One sem hour**

Chamber music for woodwinds. Open to all students.

Prereq: Permission of the department. Non-major only.

**MUS 475 Chamber Music Performance. Two sem hours**

Study and performance of literature for small chamber groups. May be repeated for credit.

Prereq: Permission of the department.

## Music Therapy

**MUS 103 Introduction to Music Therapy. Two sem hours**

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 setting is required.

Prereq: Admission to Music Therapy Program or departmental permission.

**MUS 303 Psychology of Music I. Two sem hours**

An examination of the physiological and psychological effects of music on human behavior. A study of the acoustical properties of music and evaluation and measurement of human response will be included. Examination of research, and need for continued investigation and documentation.

Prereq: Admission to Music Therapy Program or departmental permission, sophomore standing, MUS 102 Music Theory, Literature II, MUS 103 Introduction to Music Therapy, and PSY 101 or 102 General Psychology.

**MUS 304 Psychology of Music II. Two sem hours**

Continuation of MUS 303. The study of learning theories and their application to musical behaviors. Introduction to statistics and analysis of empirical research in the field, as well as opportunities for conducting individual investigation of selected topics.

Prereq: MUS 303 Psychology of Music I.

**MUS 404 Music Therapy Techniques I. Three sem hours**

An examination of the treatment of mentally, physically, or behaviorally impaired adults and children. Concentration on diagnostic categories and disorder classification, and experimental and theoretical aspects of the basic principles of applied music therapy.

Prereq: PSY 101 or 102 Psychology, MUS 303-304 Psychology of Music, senior standing, Music Therapy major.

**MUS 405 Music Therapy Techniques II. Three sem hours**

Continuation of MUS 404. Concentration on specific therapeutic approaches and music therapy techniques as applied in the clinical setting. Includes study of current methods of documentation of services, role of music therapist in music education, and professional role of music therapist in hospital and clinical settings.

Prereq: MUS 404 Music Therapy Techniques I.

• **MUS 424 Field Experience In Music Therapy I.****Two sem hours**

Field work experience in clinical or educational setting under supervision of a Registered Music Therapist. Taken concurrently with MUS 404 Music Therapy Techniques I.

• **MUS 425 Field Experience In Music Therapy II.****Two sem hours**

Field work experience continued. Taken concurrently with MUS 405 Music Therapy Techniques II.

**MUS 488 Clinical Training in Music Therapy.****Two sem hours**

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.



# MUSIC

The Department of Music offers basic training for musicians interested in professional careers as teachers, instrumentalists, singers and conductors, as composers and arrangers, music scholars and librarians, and, in collaboration with other departments, work in dance, radio, television and theatre. A marketing minor is also available to students who have interest in business related to music.

Enrollment in any of the following music programs will be determined by the results of instrumental or vocal auditions and theory-placement examinations in musicianship. Please use the information on audition dates and applications under the Music Department section of this catalog.

## Curriculum for Teachers of Instrumental Music\*

### Bachelor of Music Education Degree Elementary or Secondary Provisional Certificate

Adviser Chairman, Robert Quayle  
(487-1044)

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area — Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below in Groups IV and V. These particular curriculum, major, or minor requirements do specify both courses and the number to be completed.

	<b>Semester Hours</b>
<b>Group I Language</b> .....	8-9
One course in English composition, or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
<b>Group II Science and Mathematics</b> .....	10-11
PSY 101 General Psychology .....	3
PHY 210 Musical Acoustics .....	4
A second laboratory science course or a course in mathematics.	

\*The instrumental music education curriculum includes all courses needed to award a Secondary Provisional Certificate. If an Elementary Provisional Certificate is desired, consult with the director of Academic Records and Certification regarding special requirements.

<b>Group III Social Sciences</b> .....	9-12
One course in American Government selected from:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
One course in history.	
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
<b>Humanities</b> .....	9
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts (automatically met in Group V music classes below).	
<b>Group IV Education</b> .....	22
EDP 302 Educational Psychology .....	3
CUR 303 Principles of Teaching .....	3
MUS 332 Instrumental Music in Public Schools	3
MUS 333 Orchestral Methods or	
MUS 334 Band Methods .....	3
CUR 418 Seminar in Education .....	2
EDU 495 Student Teaching .....	4
EDU 496 Student Teaching .....	4
<b>Group V Fine Arts</b> .....	69
<b>Basic Courses</b> .....	33
MUS 101, 102 Music Theory-Literature I, II .....	8
MUS 201, 202 Music Theory-Literature III, IV ..	8
MUS 232 Voice Class .....	1
MUS 301, 302 History of Music .....	6
MUS 413 Orchestration .....	2
MUS 414 Band Arranging .....	2
Six of the following courses .....	6
Required:	
MUS 211 Basic Brass (trumpet, trombone)	
MUS 241 Basic Percussion	
MUS 261 Basic Strings (violin)	
MUS 281 Basic Woodwind (clarinet)	
Elect additional from:	
MUS 212 Brass Class (horn, euphonium, tuba)	
MUS 262 String Class (viola)	
MUS 263 String Class (cello, bass)	
MUS 282 Woodwind Class (flute, saxophone)	
MUS 283 Woodwind Class (oboe, bassoon)	
<b>Music Performance</b> .....	32
Applied Music	
AMU 251, 252, 253, 254 Functional Piano (if secondary instrument) .....	4
AMU 100-300 Applied Music (principal instrument) .....	15
Conducting	
MUS 326 Conducting .....	2
MUS 327 Instrumental Conducting .....	2
Ensembles .....	8
Electives (Music) .....	4
<b>Group VII Physical Education and Health</b> .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science or two semesters of Marching Band may be applied toward this requirement.	
<b>Total</b> .....	131-136

Students completing the above curriculum will have satisfied all major and minor requirements for graduation.

## Curriculum for Teachers of Vocal Music\*

### Bachelor of Music Education Degree Elementary or Secondary Provisional Certificate

Adviser Chairman, Robert Quayle  
(487-1044)

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 00. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below in Groups IV and V. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

	Semester Hours
Group I Language .....	8-9
One course in English composition, or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
Group II Science and Mathematics .....	10-11
PSY 101 General Psychology .....	3
PHY 210 Musical Acoustics .....	4
A second laboratory science course or a course in mathematics.	
Group III Social Sciences .....	9-12
One course in American government selected from:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
One course in history.	
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
Humanities .....	9
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts (automatically met by Group V music classes below).	

\*Students in this curriculum elect either organ, piano or voice as their principal instrument. In addition to their private lessons, all students meet with their instructor for a weekly class session.

The vocal music education curriculum includes all courses needed to award a Secondary Provisional Certificate. If an Elementary Provisional Certificate is desired, consult with the director of Academic Records and Certification regarding special requirements.

Group IV Education .....	22
EDP 302 Educational Psychology .....	3
CUR 303 Principles of Teaching .....	3
MUS 330 Music Education in the Elementary School .....	3
MUS 331 Music Education in the Secondary School .....	3
CUR 418 Seminar in Education .....	2
EDU 495, 496 Student Teaching .....	8
Group V Fine Arts .....	64
Basic Courses .....	26
MUS 101, 102 Music Theory-Literature I, II ..	8
MUS 201, 202 Music Theory-Literature III, IV	8
MUS 301, 302 History of Music .....	6
MUS 413 Orchestration .....	2
Two of the following courses .....	2
MUS 211 Basic Brass Class	
MUS 241 Basic Percussion Class	
MUS 261 Basic String Class	
MUS 281 Basic Woodwind Class	
Music Performance .....	34
Applied Music	
AMU 100-300 Applied Music (principal instrument) .....	16
AMU 251-4, B11-12 Applied Music, if keyboard is secondary instrument .....	6
A01-A12 Applied Music (voice), if secondary instrument	
Conducting	
MUS 326 Conducting .....	2
MUS 328 Choral Conducting .....	2
Ensembles .....	8
Electives (Music) .....	4
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Total .....	126-131

Students completing the above curriculum will have satisfied all major and minor requirements for graduation.

## Curriculum for the Bachelor of Music Degree (Performance)

Adviser Chairman, James B. Hause  
(487-0244)

This degree program is available in voice, keyboard and orchestral instruments. Consult adviser chairman.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

## Bachelor of Music Therapy Degree

### Without Teacher Certification

(For degree with certification see  
discussion at end of this curriculum.)

Adviser chairperson, **Evelyn Adelman**  
(487-0292)

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies Requirements, all students on this curriculum must complete all other courses specified below in Groups IV and V. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

	Semester Hours
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library sci- ence (Group I).	
Group II Science and Mathematics .....	10-11
(No more than two courses in one department)	
One laboratory science course.	
A second laboratory science course or a course in mathematics.	
One elective course in Group II.	
Group III Social Sciences .....	9-12
One course in American Government from: PLS 112 American Government or PLS 202 State and Local Government .....	3
Two courses in history.	
Humanities .....	15
Two courses in literature in the English Depart- ment, two intermediate foreign language courses, or two advanced foreign language lit- erature courses.	
One course in philosophy or religion. MUS 301 and 302 History of Music .....	6
(automatically applied to Supporting Courses in major below)	
Group V Major .....	44-46
Applied Music* .....	32
Music electives or Music courses determined by Area .....	8
Electives (music or non-music) .....	4-6**
Supporting Courses .....	36-34
Theory Literature .....	20
Music 101, 102, 201, 202, 401, 402	
Secondary Instrument .....	4
Ensembles .....	8
Conducting .....	2-4**
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science or two semesters of Marching Band may be applied toward this requirement.	
Free electives .....	0
Total .....	124

Students completing the above major will have satisfied all major and minor requirements for graduation.

Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course .....	3
One course in fundamentals of speech .....	2-3
One of the following speech courses: .....	3
SPH 225 Listening Behavior	
SPH 226 Non-Verbal Communication	
SPH 227 Interpersonal Communication	
Group II Science and Mathematics .....	14-17
BIO 105 Biology and the Human Species .....	4
ZOO 326 Human Physiology .....	3
(Anatomy and Physiology may be taken as a Group VII course in which case Psychology 102 must be taken as second lab science to fulfill Group II requirements)	
PSY 101 or 102 General Psychology .....	3-4
PSY 360 Abnormal Psychology .....	3
One of the following psychology courses: .....	3
PSY 321 Child Psychology	
PSY 322 Psychology of Adolescence	
PSY 352 Psychological Testing and Evaluation	
PSY 361 Psychotherapy	
PSY 365 Methods and Principles of Applied Behavior Analysis	
Group III Social Sciences .....	12
One course in American government from PLS 112, 113, or 202 .....	3
One course in history .....	3
SOC 105 Introductory Sociology .....	3
One of the following: .....	3
SOC 204 Marriage and Family	
SOC 309 Culture and Personality	
SOC 311 Social Gerontology	
SOC 312 Medical Sociology	
SOC 402 Group Dynamics	

\*The applied music credit is recommended at four semester hours for eight semesters with both a junior and senior recital required.

\*\*If student takes two-course sequence in conducting, only four hours of electives are available.

Humanities .....	9
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts (automatically met in Group V music classes below).	
Group IV Education .....	2
SGN 251 Education of Exceptional Children .....	2
Group V Fine Arts .....	80
Music Theory-Literature and History (MUS 101, 102, 201, 202, 301, 302, 413) .....	24
MUS 224 Recreational Music .....	2
MUS 326 Conducting .....	2
Ensembles .....	4
AMU 100-300 Applied Music (Principal Instrument) .....	14
Minimal performance skill recommended by the National Association for Music Therapy to be acquired through the following courses or proficiency examination. It is expected that most students would be able to meet some of these minimal skill levels upon entrance:	
Voice: Voice Class 232 and 101-A01-1 .....	2
Piano: Functional Piano 251-254 and 305 Keyboard Skills .....	6
Guitar: 274 Functional Guitar .....	2
Secondary Instrument Classes .....	4
MUS 211 Basic Brass Class	
MUS 241 Percussion	
MUS 261 Basic String Class	
MUS 281 Basic Woodwind Class	
MUS 103 Introduction to Music Therapy .....	2
MUS 303 Psychology of Music I .....	2
MUS 304 Psychology of Music II .....	2
MUS 404 Music Therapy Techniques I .....	3
MUS 424 Field Experience in Music Therapy ..	2
MUS 405 Music Therapy Techniques II .....	3
MUS 425 Field Experience in Music Therapy ..	2
MUS 488 Clinical Training in Music Therapy ..	2
Music electives .....	2
Group VII Physical Education and Health .....	2-7
Two activity courses to be chosen 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	
PEP 200 Anatomy and Physiology (if not taken in Group II) .....	5
Free electives .....	0
Total .....	129-132

## BACHELOR OF MUSIC THERAPY DEGREE

With Certification in Music Education

Adviser Chairperson, **Mary Phipps**  
(487-0280)

Students who wish to elect the Bachelor of Music Therapy Degree with certification in Music Education will elect the appropriate curriculum (Bachelor of Music Education Vocal-Keyboard or Bachelor of Music Education-Instrumental) as specified on pages 143 and 144 and must also include the following specific courses in the groups indicated:

	Semester Hours
<b>Group II Science and Mathematics</b>	
BIO 105 Biology and the Human Species .....	4
ZOO 326 Human Physiology .....	3
(Anatomy and Physiology may be taken as a Group VII course in which case Psychology 102 must be taken as second lab science to fulfill Group II requirements)	
PSY 101 or 102 General Psychology .....	3-4
PSY 360 Abnormal Psychology .....	3
One of the following psychology courses: .....	3
PSY 321 Child Psychology	
PSY 322 Psychology of Adolescence	
PSY 352 Psychological Testing and Evaluation	
PSY 361 Psychotherapy	
PSY 365 Methods and Principles of Applied Behavior Analysis	
<b>Group III Social Sciences</b>	
SOC 105 Introductory Sociology .....	3
One of the following: .....	3
SOC 204 Marriage and Family	
SOC 309 Culture and Personality	
SOC 311 Social Gerontology	
SOC 312 Medical Sociology	
SOC 402 Group Dynamics	
<b>Group IV Education</b>	
SGN 251 Education of Exceptional Children ...	2
<b>Group V Fine Arts</b>	
MUS 224 Recreational Music .....	2
Minimal performance skill recommended by the National Association for Music Therapy to be acquired through the following courses or proficiency examination. It is expected that most students would be able to meet some of these minimal skill levels upon entrance.	
MUS 305 Keyboard Skills .....	2
MUS 274 Functional Guitar .....	2
One additional secondary instrument class (Bachelor of Music Education Vocal only) ...	
AMU 101-A01 Voice (Bachelor of Music Education Instrumental only) .....	1
The total Music Therapy 18 semester-hour sequence listed on the curriculum above: MUS 103 Introduction to Music Therapy, MUS 303 Psychology of Music I, MUS 304 Psychology of Music II, MUS 404 Music Therapy Techniques I, MUS 424 Field Experience in Music Therapy, MUS 405 Music Therapy Techniques II, MUS 425 Field Experience in Music Therapy, and MUS 488 Clinical Training in Music Therapy.	

This degree program is approved by the National Association for Music Therapy

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed.

Group VII Physical Education and Health	
Two activity courses to be chosen from the following:	2
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	
PED 200 Anatomy and Physiology (if not taken in Group II).	5

## Music Major

Adviser Chairman, **Robert Quayle**  
(487-0295)  
(Non-teaching: 49 semester hours)

The student will complete the requirements for the Bachelor of Arts degree curriculum or the Bachelor of Science degree curriculum, page 31, by including the following 49 semester hour major and a different minor subject of 20 semester hours. In completing either of these curricula, the student does not earn a teaching certificate.

	Semester Hours
Required courses for a major in music	49
MUS 101, 102 Music Theory-Literature I, II	8
MUS 201, 202 Music Theory-Literature III, IV	8
MUS 301, 302 History of Music	6
MUS 401, 402 Music Theory-Literature V, VI	4
AMU 100-300 Applied Music (Principal Instrument)	12
Electives (Department courses for which prerequisites are satisfied)	11

### General Music Minor (Non-teaching: 20 semester hours)

Students planning admission to a general music minor should complete the following:

1. An application at the Department of Music office.
2. Placement tests in applied music and basic musicianship.
3. A course of study worked out with a designated music adviser.

### \*\*Elementary Music Education Minor (24 semester hours)

Students planning admission to an elementary music education minor should complete the following:

1. An application at the Department of Music office.
2. Placement tests in applied music and basic musicianship.
3. With a designated music adviser, work out a curriculum to include the necessary courses from music theory, music literature, music education, applied music, conducting and piano.
4. This minor does not apply on a secondary curriculum.
5. Three or four hours of student teaching is required for this minor.

\*\*All courses in this minor must have been completed before student teaching in music as a minor field. The methods course must have been taken in the area of teaching desired.

## PHYSICS AND ASTRONOMY

Department Head: **Elwood Kureth**

Professors: **James M. Barnes, Walter L. Gessert, Fred T. Johnson, Adolph P. Loeber, Robert Silver**  
Associate Professors: **James C. Porter, Richard F. Roth, Jon K. Wooley**

Assistant Professors: **P. Daniel Trochet**

The Department of Physics and Astronomy offers two physics majors (a research-oriented major of 36 semester hours and a regular major of 30 semester hours), a physics minor (see page 153) and an astronomy minor (see page 152). In addition, the Department administers interdisciplinary programs in Physical Science, General Science and Applied Science. See section on programs of study.

## GRADUATE STUDY

The Physics and Astronomy Department offers graduate work leading to the master's degree in physics, physics education, and general science. For descriptions of graduate courses and programs in the Physics and Astronomy Department, please consult the Graduate Catalog.

## PHYSICS COURSES

New courses are identified with a bullet •.

### PHY 100 Science for Elementary Teachers.

Three sem hours

This course is designed to stimulate interest in science by the use of simple and inexpensive equipment to demonstrate scientific principles. The course includes such topics as sound, light, heat, electricity and magnetism. This course does not count toward a physics major or minor. Open to students pursuing any curriculum for elementary teachers.

### PHY 110 Physical Science.

Four sem hours

This course is designed for the non-science major with little or no background in science or mathematics. In this course, the student will find that surprisingly few relationships tie together the diverse phenomena of nature. Those physical principles and relationships are evident in the everyday world: in the solid earth one stands on, the liquids one drinks, the gases one breathes, the heat one feels, the light one sees, the sound one hears, and the radio one tunes. The purpose of this course is not to give students a rigorous preparation necessary to major in science, but to "turn them on" to 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 221-222 or PHY 223-224. This course does not count toward a physics major or minor. Four lectures and one one-hour laboratory session per week.

### PHY 115 Physics in the Modern Home.

Four sem hours

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. This course does not count on a physics major or minor.

**PHY 140 Light, Color and Photography for Artists and Others. Four sem hours**

A course for non-scientists who wish to put their experience with optics on a scientific foundation. The course is based on general physical principles and emphasizes optical phenomena rather than the mathematical treatment of the phenomena. The topics covered include: optical instruments, the eye, color, photography, lasers, and holography. Three lecture hours and one two-hour laboratory per week. This course does not count on the physics major or minor.

**PHY 177, 178, 179 Special Topics in Physics. One, two, three sem hours**

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. Additional special topics courses may be offered at the 200, 300 and 400 levels.

**PHY 210 Musical Acoustics. Four sem hours**

Mainly intended for students with a major interest in music. The physical bases of sound production, transmission and reception will be outlined and demonstrated. Application to topics such as intervals, temperament, acoustics of rooms and tone production in the various types of musical instruments will be considered. This course does not count on a physics major or minor.

**PHY 211 Elementary Physical Science. Three sem hours**

Designed particularly for teachers in both early and later elementary science. A study will be made, at an elementary level, of common machines, weather, matter, energy, heat, sound, light, magnetism and electricity. Individual student activity in the working out of simple experimental projects, followed by class discussions, will constitute a major part of the course. Most of the apparatus will be made from materials available in the home or at a variety store. This course does not count on a physics major or minor.

**PHY 221 Mechanics, Sound and Heat. Four sem hours**

A basic course in college physics intended for those liberal arts students who desire an introduction to physics and for those preprofessional students who do not require a rigorous knowledge of problem solving. All students desiring physics as a major subject of study and all pre-engineers must elect PHY 223 Mechanics, Sound and Heat. This course deals with the same laws of mechanics, sound and heat as are treated in Physics 223, but will place more emphasis on applications and somewhat less on problems. Laboratory: two consecutive hours, one day per week.

Prereq: MTH 107 Trigonometry and MTH 105 Higher Algebra II, or a "B" average in high school mathematics through trigonometry.

**PHY 222 Electricity and Light. Four sem hours**

A continuation of 221 Mechanics, Sound and Heat. A study is made of static and current electricity, of magnetism and of light. Laboratory: two consecutive hours, one day per week. Prereq: PHY 221 Mechanics, Sound and Heat.

**PHY 223 Mechanics, Sound and Heat. Five sem hours**

A basic course in college physics intended for students majoring in physical science and those on a pre-engineering curriculum. Deals with laws of mechanics, sound and heat together with their application. Laboratory: two consecutive hours, one day per week.

Prereq: MTH 120 and 121 Calculus I and II (MTH 121 may be taken concurrently.)

**PHY 224 Electricity and Light. Five sem hours**

A continuation of 223 Mechanics, Sound and Heat. A study is made of static and current electricity, of magnetism, and of light. Laboratory: two consecutive hours, one day per week. Prereq: PHY 223 Mechanics, Sound and Heat.

**PHY 229 Strength and Elasticity of Materials. Four sem hours**

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.

Prereq: PHY 223 Mechanics, Sound and Heat.

**PHY 230 Engineering Dynamics. Four sem hours**

Vector representation of physical quantities. Statics of rigid bodies. Friction. Kinematics of particles and rigid bodies. Dynamics of particles and rigid bodies. Work and energy. Four lecture-recitation periods per week.

Prereq: PHY 223 Mechanics, Sound and Heat; MTH 121 Calculus II, and MTH 122 Elementary Linear Algebra.

**PHY 256 Introduction to Electronics. Three sem hours**

An introduction to electronic circuits, electronic devices and electronic circuits 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.

Prereq: MTH 105 College Algebra.

**PHY 270 Introduction to Modern Physics. Three sem hours**

An introduction to modern physics and relativity stressing the qualitative interpretation, according to the modern quantum theory, of experimental results in atomic and nuclear physics.

Prereq: PHY 222 or PHY 224 Electricity and Light.

**PHY 272 Modern Physics Laboratory. One sem hour**

A laboratory course providing experimental studies in such areas as late classical, relativistic, quantum and nuclear physics. Three hours of laboratory per week.

Prereq: PHY 270 Introduction to Modern Physics, which may be taken concurrently.

**PHY 296 Science in Science Fiction. Three sem hours**

Current science fiction in paperback edition serves in this course as a springboard for a wide-ranging study of the physical sciences. This course does not count on a physics major or minor.

**PHY 297, 298, 299 Independent Study in Physics. One, two, three sem hours**

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 the department head.

**PHY 325 Methods of Teaching the Physical Sciences.****Three sem hours**

Devoted to 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.

*Prereq:* Open to prospective teachers following the Junior-Senior High School Curriculum who are majoring or minoring in general science or a physical science. Junior standing or permission of the department. Not open to students on academic probation. This course does **not** count on a physics major or minor.

**PHY 387 Cooperative Education in Physics.****Three sem hours**

Four or 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 alternated with full-time attendance at the University. Use on physics major or minor subject to departmental approval.

*Prereq:* Completion of sophomore year. Admittance by application only. Offered on a credit/no credit basis.

**PHY 390, 391 Physics Project.****Two sem hours**

A suitable project in physics is to be done on an individual basis. Arrangements must be made with a physics staff member before the beginning of the semester.

*Prereq:* Permission of the department.

**PHY 397, 398, 399 Independent Study in Physics.****One, two, three sem hours**

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 the department head.

**PHY 417 Undergraduate Research Laboratory.****Two sem hours**

Laboratory work of a research nature is 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:* Permission of the department.

**PHY 430 Intermediate Mechanics I.****Three sem hours**

The statics and dynamics of a particle, projectiles with air resistance, central forces, dynamics of a system of particles, vibrational motion and pendulums.

*Prereq:* PHY 224 Electricity and Light, MTH 121 Calculus II, MTH 122 Elementary Linear Algebra.

**PHY 431 Intermediate Mechanics II.****Three sem hours**

A continuation of 430 Intermediate Mechanics I. Mechanics of a rigid body, generalized coordinates, the Lagrangian and Hamiltonian functions, relative motion.

*Prereq:* PHY 430 Intermediate Mechanics I, MTH 223 Multivariable Calculus.

**PHY 432 Mechanics Laboratory.****One sem hour**

A laboratory course providing experimental studies in intermediate mechanics. Three hours of laboratory per week.

*Prereq:* PHY 430 Intermediate Mechanics I.

**PHY 436 Vibration and Sound.****Three sem hours**

Detailed studies of vibration and wave motion are made with specific emphasis on acoustic waves in air and other media. Other topics considered: reflection, refraction and interference of sound; vibrating strings and air columns; electro-acoustic transducers; architectural acoustics.

*Prereq:* PHY 221 or 223 Mechanics, Sound and Heat, PHY 22 or 224 Electricity and Light, MTH 223 Multivariable Calculus

**PHY 440 Optics.****Three sem hours**

An intermediate course dealing with fundamentals of geometrical and physical optics. Some topics considered are reflection, refraction, lenses and optical instruments, spectroscopy and spectra, interference, diffraction and polarization.

*Prereq:* PHY 221 or 223 Mechanics, Sound and Heat, PHY 22 or 224 Electricity and Light, MTH 121 Calculus II.

**PHY 441 Modern Optics.****Three sem hours**

A course dealing with those aspects of physical and quantum optics which are essential for the quantitative description of modern optical technology such as lasers and holography. Emphasis is on physical optics. Topics covered include application of Fourier Transform to diffraction, holography, Fresnel reflection coefficients, propagation of light in crystals, coherence and partial coherence and lasers.

*Prereq:* PHY 440 Optics, MTH 223 Multivariable Calculus

**PHY 442 Optics Laboratory.****One sem hour**

A laboratory course providing experimental studies in geometrical, physical and quantum optics. Three hours of laboratory per week.

*Prereq:* PHY 440 Optics, which may be taken concurrently.

**PHY 450 Electricity and Magnetism.****Four sem hours**

An intermediate course in the classical theory of electricity and magnetism which develops the concept of electric and magnetic fields from the historical force laws of Coulomb and Ampere and which culminates with the formulation of Maxwell's Equations. Among the topics discussed are Gauss' Law, conductors, dielectrics, magnetic susceptibility, magnetic fields of currents, Faraday's Law of Induction and electromagnetic forces.

*Prereq:* PHY 221 or 223 Mechanics, Sound and Heat; PHY 22 or 224 Electricity and Light; MTH 223 Multivariable Calculus

**PHY 452 Electrical Measurements.****Four sem hours**

An intermediate course in electricity. The classroom work covers the fundamental principles involved in measuring electric and magnetic quantities. In the laboratory the student acquires experience in the use of high grade electrical apparatus. The experiments include studies of galvanometers, Wheatstone bridges of various forms, potentiometers and standard cells, vacuum tubes, magnetic measurement and methods of measuring capacitance and inductance. Laboratory: four consecutive hours, one day per week.

*Prereq:* PHY 221 or 223 Mechanics, Sound and Heat; PHY 222 or 224 Electricity and Light.

**PHY 456 Electronics for Scientists.****Four sem hours**

Treats non-communication theory and applications of vacuum tube and semi-conductor diodes and amplifying elements and related devices. In the laboratory, tube and transistor characteristics are studied together with circuits and instruments employing these elements. Laboratory: three consecutive hours, one day per week.

*Prereq:* PHY 221 or 223 Mechanics, Sound and Heat, PHY 222 or 224 Electricity and Light.

**PHY 460 Heat and Thermodynamics.** Three sem hours  
An intermediate course in the fundamentals of heat and thermodynamics. Topics considered are thermal expansion, specific heat, change of state, heat transfer, elementary kinetic theory, thermodynamic laws, entropy and other thermodynamic functions.  
Prereq: PHY 221 or 223 *Mechanics, Sound and Heat*; PHY 222 or 224 *Electricity and Light*; MTH 223 *Multivariable Calculus*.

**PHY 462 Kinetic Theory and Statistical Mechanics.** Three sem hours  
An introduction to the kinetic theory of gases and statistical mechanics, rigorous enough to satisfy the needs of students concentrating in physics and of those contemplating advanced study in related fields of science and engineering. The principal topics are the Maxwell-Boltzmann distribution law, entropy and probability, transport phenomena, quantum statistics, Bose-Einstein and Fermi-Dirac statistics, the connection between statistical mechanics and thermodynamics, the equation of state, the elementary electron theory of metals and statistical methods in nuclear physics.  
Prereq: PHY 224 *Electricity and Light*; MTH 223 *Multivariable Calculus*.

**PHY 471 Nuclear Physics.** Four sem hours  
Radioactivity, scintillation counters, cloud chambers, particle accelerators, 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 221 or 223 *Mechanics, Sound and Heat*; PHY 222 or 224 *Electricity and Light*; MTH 121 *Calculus II*.

**PHY 475 Introduction to Quantum Mechanics.** Three sem hours  
This course will develop the fundamental ideas of the quantum theory; the dual nature of matter, wave equations and wave packets, observable and linear operators, the application of the Schrodinger and Heisenberg equations to elementary systems, Pauli's theory of electron spin.  
Prereq: PHY 224 *Electricity and Light*; MTH 223 *Multivariable Calculus*.

**PHY 476 Solid State Physics.** Three sem hours  
An introduction to the principles and phenomena associated with the solid state: crystal structure, lattice waves, free electron model, band theory, properties of solids, imperfections.  
Prereq: PHY 450 *Electricity and Magnetism*, PHY 475 *Introduction to Quantum Mechanics*.

**PHY 481 Mathematical Physics.** Three sem hours  
Advanced mathematical topics selected for their importance to the physics student, with applications drawn from the field of physics: Vectors, matrices, tensors, partial differential equations, contour integration, calculus of variations, integral equations and transforms, eigen-value functions, perturbation and group theory, special functions.  
Prereq: MTH 223 *Multivariable Calculus*, PHY 224 *Electricity and Light*.

**PHY 487 Cooperative Education in Physics.** Three sem hours  
Four to six months of full-time employment at an industrial firm especially chosen for imparting a practical educational experience in physics. The program consists of two work experiences alternated with full-time attendance at the University. Use on physics major or minor subject to departmental approval.  
Prereq: PHY 387 *Cooperative Education in Physics*, Admittance application only. Offered on a credit/no credit basis.

**PHY 490, 491 Special Problems (Honors Courses).** Two sem hours  
An original experimental or theoretical problem in some area of physics is to be 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 permission of the department.

**PHY 495 Readings in Physics (Honor Course).** One sem hour  
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 permission of the department.

**PHY 497, 498, 499 Independent Study in Physics.** One, two three sem hours  
An extensive study of a problem or group of problems under the direction of a department faculty member.  
Prereq: Faculty member and department head approval.

## ASTRONOMY COURSES

**AST 203 Exploration of the Universe.** Three sem hours  
An astronomy course for students of any curriculum, designed to acquaint the student with the field of astronomy. Topics discussed include the solar system, stars, galaxies, cosmology, and the history of astronomy. Observations with telescopes are scheduled a few evenings each semester. AST 204 *Astronomical Investigations* may be taken concurrently with this course. AST 203 *Exploration of the Universe* cannot be applied toward a physics major or minor.

**AST 204 Astronomical Investigations.** One sem hour  
A laboratory course for the beginning astronomy student. Activities and investigations illustrating the techniques and concepts of astronomy are presented. Two hours of laboratory per week.  
Prereq: AST 203 *Exploration of the Universe* or AST 205 *Principles of Astronomy* or may be taken concurrently.

**AST 205 Principles of Astronomy.** Four sem hours  
An astronomy course for students desiring a comprehensive introduction to astronomy. Topics discussed in 203 *Exploration of the Universe* are covered in more detail and additional topics are introduced. This course is especially recommended for science students. AST 204 *Astronomical Investigations* may be taken concurrently with the course. Not open to students with credit in AST 203 *Exploration of the Universe*. This course may count on the 30-hour physics major.

**AST 297, 298, 299 Independent Study in Astronomy.** One, two, three sem hours  
An intensive study of a problem or group of problems under the direction of a department faculty member.  
Prereq: Faculty member and department head approval.

**AST 315 Applied Astronomy.** Three sem hours  
A course treating the practical aspects of astronomy such as: the analysis of observational data; astronomical coordinate systems; determination of time and position on the earth. This course may count on the 30-hour physics major.  
Prereq: AST 205 *Principles of Astronomy* and MTH 120 *Calculus I* (MTH 120 may be taken concurrently).



**AST 370 Astronomical Concepts.** Three sem hours  
 Topics introduced in AST 205 Principles of Astronomy are discussed in a more rigorous fashion. Additional areas such as celestial mechanics, binary stars and topics in astrometry and astrophysics are also presented.  
 Prereq: AST 205 Principles of Astronomy; PHY 223 Mechanics, Sound and Heat; PHY 224 Electricity and Light (may be taken concurrently); MTH 120 Calculus I; MTH 121 Calculus II (may be taken concurrently).

**AST 497, 498, 499 Independent Study in Astronomy.**  
 One, two, three sem hours  
 An intensive study of a problem or group of problems under the direction of a department faculty member.  
 Prereq: Faculty member and department head approval.

**APPLIED SCIENCE CURRICULUM**

**Bachelor of Arts or Bachelor of Science Degree**

Adviser Chairman, James Barnes  
 (487-4144)  
 Physics and Astronomy Department

This program, designed for students who plan to enter occupations in which a substantial background in mathematics and science is required, calls for concentration of 16-18 semester hours each in two of three departments - chemistry, mathematics and physics - and 36 hours in the other. To qualify for a Bachelor of Arts degree, the student must complete one year of college level credit in one foreign language.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below in Groups II and VI.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	<b>Semester Hours</b>
<b>Group I Language</b> .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
<b>Group II Science and Mathematics</b> .....	69-71
Required Courses .....	51
<b>Chemistry</b>	
CHM 131 General Chemistry I .....	5
CHM 132 General Chemistry II .....	4
CHM 241 Materials Science .....	3
CHM 281 Quantitative Analysis .....	4

<b>Mathematics and Computer Science</b>	
MTH 120 Calculus I .....	4
MTH 121 Calculus II .....	4
MTH 122 Elementary Linear Algebra .....	2
MTH 223 Multivariable Calculus .....	4
CSC 237 Computer Programming and Numeric Methods .....	3
<b>Physics</b>	
PHY 223 Mechanics, Sound and Heat .....	5
PHY 224 Electricity and Light .....	5
PHY 270 Introduction to Modern Physics .....	3
PHY 272 Modern Physics Laboratory .....	1
PHY 456 Electronics for Scientists .....	4
Additional courses are required for a major.	
Select one group .....	18-20
<b>*Chemistry</b>	
CHM 371 Organic Chemistry I .....	3
CHM 372 Organic Chemistry II .....	3
CHM 373 Organic Chemistry Laboratory .....	2
CHM 461 Physical Chemistry I .....	3
CHM 462 Physical Chemistry Laboratory .....	2
**Electives .....	7
<b>Mathematics</b>	
MTH 325 Differential Equations and Vector Analysis .....	3
MTH 425 Mathematics for Scientists .....	3
**Electives .....	13
<b>Physics</b>	
PHY 430 Intermediate Mechanics I .....	3
PHY 452 Electrical Measurements .....	4
PHY 471 Nuclear Physics .....	4
One of the following laboratory courses:	
PHY 432 Mechanics Laboratory .....	1
PHY 442 Optics Laboratory .....	1
Electives .....	6
<b>Group III Social Sciences</b> .....	9-12
One course in American government from:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
One course in history.	
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
<b>Humanities</b> .....	11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music, or dramatic arts.	
<b>Group VI Practical Arts</b> .....	6
IT 122 Technical Drawing .....	3
IT 223 Descriptive Geometry .....	3
<b>Group VII Physical Education and Health</b> .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Free electives .....	17-10
Total .....	124

\*Students wishing to become professional chemists please see Professional Curriculum in Chemistry, page 75.  
 \*\*Electives must have approval of this department. Electives in physics must come from physics courses numbered 300-400.

## ASTRONOMY

Adviser Chairman, **Jon Wooley**  
(487-4144)

Department of Physics and Astronomy

### Astronomy Group Minor (24 semester hours)

This minor is designed to give the interested 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.

	Semester Hours
Required courses .....	11
AST 204 Astronomical Investigations .....	1
AST 205 Principles of Astronomy .....	4
AST 315 Applied Astronomy .....	3
AST 370 Astronomical Concepts .....	3
Electives approved by the Department of Physics and Astronomy in physics, astronomy, mathematics, or chemistry .....	13

Non-physics majors must include PHY 223 *Mechanics, Sound and Heat* and PHY 224 *Electricity and Light* among these electives.

## GENERAL SCIENCE

Adviser Chairman: **Daniel Trochet**  
(487-4144)

Department of Physics and Astronomy

### Group Major-Minor (56 semester hours)

Combined group major in general science and required cognate minor in biology, chemistry, earth science, geology, mathematics or physics.

Students will complete a minimum of 56 semester hours in the above six areas of science, so distributed as to fulfill the minimum requirements for a 20-hour minor in one of the six areas and a 36-hour group major composed of courses from the other five areas. Students must follow the regular departmental requirements listed for the minor chosen. If planning to teach, they will take in addition an appropriate methods course.

The following required courses must be included within the 56 semester-hours of this program:

	Semester Hours
AST 205 Principles of Astronomy .....	4
BIO 105 Biology and the Human Species .....	4
BIO 224 Principles of Conservation .....	4
CHM 131 General Chemistry I .....	5
GEO 108 Earth Science .....	4
GEO 324 Weather and Climate .....	3
MTH 105 Higher Algebra .....	3
MTH 107 Plane Trigonometry .....	2
PHY 221 Mechanics, Sound and Heat .....	4
PHY 222 Electricity and Light .....	4

Students who complete this program will be certified to teach general science in grades 7-12 and in addition would be certified to teach the subject of their minor in grades 9-12. After graduation and provisional certification, the required election of eighteen additional hours on a planned program is needed to meet the requirements for a Continuing Certificate. Students may elect to work toward a master's degree in either general science or the field of their minor.

### Group Minor (24 semester hours)

Combined group minor in general science and a major in biology, chemistry, earth science, geology, mathematics or physics.

Students shall qualify for a 30-hour major in one of the sciences named above and a 24-hour group minor in the other science areas. The minor must include five of the first six courses listed below, omitting the course from the field of their major and including a sufficient number of approved electives from the list of electives below to complete the 24-hour minor.

	Semester Hours
AST 205 Principles of Astronomy .....	4
BIO 105 Biology and the Human Species .....	4
CHM 119 Fundamentals of Chemistry .....	4
GEO 108 Earth Science .....	4
MTH 105 Higher Algebra .....	3
PHY 110 Physical Science I .....	4
Electives from the following: .....	4-5
BIO 207 Elements of Ecology .....	2
BIO 224 Principles of Conservation .....	4
BIO 205 Field Biology .....	4
CHM 120 Fundamentals of Chemistry .....	4
GEO 226 The Oceans .....	2
GEO 327 Soil Science .....	3
MTH 107 Plane Trigonometry .....	2
CSC 137 Introduction to Computer Programming .....	3

Students wishing to major in one science and yet qualify for teaching general science may elect the program I immediately above.

## PHYSICAL SCIENCE

Adviser Chairman: **Daniel Trochet**  
(487-4144)

Department of Physics and Astronomy

### Group Major-Minor (56 semester hours)

Combined group major in physical science (astronomy, chemistry, earth science, mathematics, physics) with cognate minor in chemistry, earth science or mathematics.

This major-minor combination is provided to prepare students for teaching the physical sciences at the secondary level. The student will complete a minimum of 56 semester hours in the above five areas of science, so distributed as to fulfill the minimum requirements for a 20-hour minor in chemistry, earth science, or mathematics and a 36-hour group major composed of courses from the other four areas. A 20-hour concentration in physics is included in the 36-hour group major.

\*Students exempted from BIO 105 *Biology and the Human Species* will take either BOT 221 *General Botany* or ZOO 222 *General Zoology*.

\*\*CHM 119 and 120 may be substituted for CHM 131 if the student did not take chemistry in high school.

\*\*\*Students exempted from either mathematics course will elect instead an equivalent amount of more advanced mathematics.

	Semester Hours
Required courses .....	34
GEO 108 Earth Science .....	4
GEO 324 Weather and Climate .....	3
*PHY 221 Mechanics, Sound and Heat .....	4
*PHY 222 Electricity and Light .....	4
PHY 270 Introduction to Modern Physics .....	3
AST 205 Principles of Astronomy .....	4
**CHM 119 Fundamentals of Chemistry I .....	4
**CHM 120 Fundamentals of Chemistry II .....	4
MTH 120 Calculus I .....	4
One of the following mathematics or computer science courses .....	3-4
MTH 121 Calculus II .....	4
CSC 136 Survey of Computer Science .....	3
CSC 137 Introduction to Computer Programming .....	3
Additional electives chosen from Physics and Astronomy to complete 20 hours in Physics and Astronomy including at least one lab course .....	5
Regular Cognate Minor .....	10-12
Additional courses for a regular minor in chemistry, earth science, or mathematics.	
Additional electives in science or mathematics to make up a total of 56 hours in the group major program .....	4-1
See also additional Physics requirements below.	
All electives must be approved by the adviser.	

## PHYSICS

Adviser Chairman: **Robert Silver**  
(487-4144)

Department of Physics and Astronomy

### Physics Research Major (36 semester hours)

The 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 experience 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 for those capable of doing it.

	Semester Hours
Required courses .....	22
PHY 223 Mechanics, Sound and Heat .....	5
PHY 224 Electricity and Light .....	5
PHY 430 Intermediate Mechanics I .....	3
PHY 450 Electricity and Magnetism .....	4
PHY 475 Introduction to Quantum Mechanics .....	3
PHY 417 Undergraduate Research or PHY 490 Special Problems (Honors) .....	2
Three of the following laboratory courses .....	3-12
PHY 272 Modern Physics Laboratory .....	1
PHY 432 Mechanics Laboratory .....	1
PHY 442 Optics Laboratory .....	1
PHY 452 Electrical Measurements .....	4
PHY 456 Electronics for Scientists .....	4
PHY 471 Nuclear Physics .....	4
Electives in Physics .....	11-2

\*Students may elect PHY 223 and PHY 224 instead of PHY 221 and 222.

\*\*Students wishing to minor in Chemistry must elect CHM 131 and 132 instead of CHM 119 and 120.

Total .....	36
Additional Requirements:	
The following courses in mathematics are required.	
In order to satisfy the requirements for a mathematics minor, either CSC 137 Introduction to Computer Programming, or CSC 237 Computer Programming and Numeric Methods, must be completed.	
MTH 120 Calculus I .....	4
MTH 121 Calculus II .....	4
MTH 122 Elementary Linear Algebra .....	2
MTH 223 Multivariable Calculus .....	4
Two of the following three courses:	
MTH 325 Differential Equations and Vector Analysis .....	3
MTH 425 Mathematics for Scientists .....	3
MTH 436 Numerical Analysis .....	3
See also Additional Physics Requirements below.	

### Physics Major (30 semester hours)

This major is provided for students who plan to teach physics in a secondary school, 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, astronomy or geology or with the field of business. A maximum of six semester hours of designated astronomy courses may be included among the electives on this major.

	Semester Hours
Required courses .....	16
PHY 223 Mechanics, Sound and Heat .....	5
PHY 224 Electricity and Light .....	5
PHY 270 Introduction to Modern Physics .....	3
PHY 430 Intermediate Mechanics I .....	3
Three of the following laboratory courses .....	3-12
PHY 272 Modern Physics Laboratory .....	1
PHY 432 Mechanics Laboratory .....	1
PHY 442 Optics Laboratory .....	1
PHY 452 Electrical Measurements .....	4
PHY 456 Electronics for Scientists .....	4
PHY 471 Nuclear Physics .....	4
Electives in Physics and Astronomy .....	11-2
Total .....	30
Additional Requirements:	
MTH 120 Calculus I .....	4
MTH 121 Calculus II .....	4
MTH 122 Elementary Linear Algebra .....	2
Select one of the following:	
MTH 223 Multivariable Calculus .....	4
CSC 237 Computer Programming and Numeric Methods .....	3
See also Additional Physics Requirements below.	

### Physics Minor (20 semester hours)

	Semester Hours
Required courses .....	13
PHY 223 Mechanics, Sound and Heat .....	5
PHY 224 Electricity and Light .....	5
PHY 270 Introduction to Modern Physics .....	3
One of the following laboratory courses .....	1-4
PHY 272 Modern Physics Laboratory .....	1
PHY 432 Mechanics Laboratory .....	1
PHY 442 Optics Laboratory .....	1
PHY 452 Electrical Measurement .....	4
PHY 456 Electronics for Scientists .....	4
PHY 471 Nuclear Physics .....	4
Electives in Physics .....	6-3
Total .....	20

# POLITICAL SCIENCE

Department Head: Leonas Sabaliunas

Professors: Thomas L. Brewer, Benjamin T. Hourani, Marjorie Lansing, James S. Magee, Robert O. McWilliams, Barnabas A. Racz, M. Hisham Sabki, Leonas Sabaliunas

Associate Professors: Robert C. Grady, David W. Hortin, James D. Johnson, Karen E. Lindenberg, Charles M. Monsma, James W. Pfister

The Political Science Department offers a major and minor in political science (see page 158) and administers the programs in public administration (see page 158) and in public law and government (see page 160).

The Political Science Department participates in the majors and minors in Area Studies (Africa, Asia/Far East, Latin America, Middle East/North Africa, Soviet Union). See page 00 for requirements.

## COURSES

New courses are identified with a bullet •.

**PLS 112 American Government.** Three sem hours  
A study of the forms and functions of American government on all levels: national, state and local. National government receives special emphasis, but comparisons between the levels of government are made throughout the course. Satisfies the political science requirement of all curriculums.

**PLS 113 American Government Honors.** Three sem hours  
An accelerated course in American Government open to freshmen with special preparation or interest. Will cover the same subject matters as PLS 112 American Government but will utilize advanced materials and stress individual research projects. Satisfies the political science requirement of all curriculums. Credit is allowed for PLS 112 or 113, not both.

**PLS 202 State and Local Government.** Three sem hours  
A study of the forms and functions of state and local government 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.  
Prereq: If freshman, PLS 112 or permission of the department.

**PLS 210 Comparative Political Analysis.** Three sem hours  
An introduction to the basic concepts and analytical approaches utilized in the comparative study of politics and political systems.  
Prereq: PLS 112 American Government.

**PLS 211 European Political Systems.** Three sem hours  
A comparative survey of the political systems of Great Britain, France, Italy, Germany and the Soviet Union.  
Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 212 Asian Political Systems.** Three sem hours  
A study of the politics and governments of China, Japan, the Mainland Southeast Asian States, Indonesia and India.  
Prereq: PLS 112 American Government or PLS 113 American Government (honors) or PLS 202 State and Local Government.

**PLS 216 Municipal Government.** Three sem hours  
A study of the forms and functions of municipal government.  
Prereq: PLS 112 American Government or PLS 202 State and Local Government.

### Additional Requirements:

MTH 120: Calculus I	4
MTH 121: Calculus II	4

See also Additional Physics Requirements below.

### Additional Physics Requirements

Students who change their curriculum to a physics major or minor after completing PHY 221 Mechanics, Sound and Heat and PHY 222 Electricity and Light may request the department to approve substitution of these courses for PHY 223 Mechanics, Sound and Heat and PHY 224 Electricity and Light. The total number of hours required for a major or minor is not reduced by this substitution. Transfer students who are majoring in physics or physical science must take a minimum of nine semester hours in this department; those minoring must take a minimum of six semester hours.

Physics majors and physical science majors who are candidates for teachers' certificates will take PHY 325 Methods of Teaching the Physical Sciences in addition to the requirements of the major.

**PLS 270 Introduction to Public Administration.****Three sem hours**

The nature of public administration; problems connected therewith—direction and organization; recruitment, training and promotion of personnel; maintenance of loyalty and efficiency.

Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 271 Introduction to International Relations.****Three sem hours**

The fundamentals of great power politics together with the impact of efforts at international organization.

Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 277, 278, 279 Special Studies in Political Science.****One, two, three sem hours**

An examination of a topic in political science not normally covered in the curriculum in which the distinctive concerns and methodology 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 280 The American Presidency.****Three sem hours**

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 American Government or PLS 113 American Government (honors) or PLS 202 State and Local Government.

**PLS 297, 298, 299 Individual Studies in Political Science.****One, two, three sem hours**

Approved studies on an individual basis in areas in which the department does not offer formal courses.

Prereq: PLS 112 American Government or PLS 113 American Government (honors) or PLS 202 State and Local Government.

**PLS 301 The American Legal System.****Three sem hours**

A survey of various substantive components of the American system of law and its function in a democratic society. Special emphasis is placed upon problems of law enforcement, legal agencies, and the processes involved in the administration of criminal justice.

Prereq: PLS 112 American Government or PLS 113 American Government (honors) or PLS 202 State and Local Government.

**PLS 308 Political Violence and Revolution.****Three sem hours**

A cross-national examination of political violence and revolution. The course will cover distinctions in types of political violence, examine ideological arguments on violence and revolution, examine case studies, and discuss the impact of political, biological, psychological and sociological factors which have been associated with violent outbreaks cross-nationally.

Prereq: PLS 112 American Government or PLS 113 American Government (honors) or PLS 202 State and Local Government.

**PLS 310 Scope and Methods of Political Science.****Three sem hours**

A course to acquaint the student with philosophic and methodological problems and analytic techniques in the study of politics. Each student is expected to gain competence in formulating and executing research projects.

Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 312 American Constitutional Law I. Three sem hours****PLS 313 American Constitutional Law II. Three sem hours**

Although these courses are designed to provide a two-semester study of the judicial process and judicial opinions, each course may be elected independently. 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.

Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 315 Consumer Law and Politics. Three sem hours**

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 which affect the consumer in the market place.

Prereq: PLS 112 American Government or PLS 113 American Government (honors) or PLS 202 State and Local Government.

**PLS 320 Comparative Legal Systems. Three sem hours**

(formerly 220)

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.

Prereq: PLS 112 American Government or PLS 113 American Government (honors) or PLS 202 State and Local Government.

**PLS 327 American Foreign Policy Process.****Three sem hours**

An introduction to the formulation and execution of American foreign policy, including consideration of the role of public opinion, the press, interest groups, Congress, the president, deterrence theory and decision-making in crisis situations.

Prereq: PLS 112 American Government.

**PLS 330 Urban Politics.****Three sem hours**

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 American Government or PLS 202 State and Local Government.

**PLS 332 Intergovernmental Relations and Federalism.****Three sem hours**

A study of intergovernmental relations in the United States focusing on recent trends in the federal system. The course examines significant developments and alternatives in shared governmental responsibilities, such as metropolitan reorganization, grant programs and regionalism.

Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 335 Labor in American Politics. Three sem hours**

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 American Government or PLS 202 State and Local Government.

**PLS 341 International Law. Three sem hours**

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 American Government or PLS 202 State and Local Government.

**PLS 342 International Organization. Three sem hours**

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 American Government or PLS 202 State and Local Government.

**PLS 352 Politics of Government Budgeting. Three sem hours**

An analysis of the political significance and the procedures of governmental budgeting in the United States.  
Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 354 Government and Politics of Canada. Three sem hours**

Analysis of the Canadian political system in terms of historical background, political environment, constitutional structure, legislative, executive and judicial processes, political parties and pressure groups, public opinion and voting behavior, political problems and trends.  
Prereq: PLS 112 American Government.

**PLS 358 Parties, Elections and Interest Groups. Three sem hours**

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 studied.  
Prereq: PLS 112 American Government.

**PLS 359 Public Opinion and Propaganda. Three sem hours**

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 American Government.

**PLS 361 Government and Politics of the U.S.S.R. Three sem hours**

A study of Soviet political institutions including constitutional developments, structure and operation of the government. Emphasis placed on the role of the Communist Party.  
Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 362 Foreign Relations of the Soviet Union. Three sem hours**

A study of Soviet foreign policy, methods and some related problems from 1917 to the present. Particular emphasis will be given to the Sino-Soviet rift and its implications.  
Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 364 The Legislative Process. Three sem hours**

A study of the agencies, procedures and influences in the formation of public policy by Congress, state legislatures and administrative agencies.  
Prereq: PLS 112 American Government.

**PLS 367 Contemporary Political Systems of Latin America. Three sem hours**

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 210 Comparative Political Analysis or permission of the department.

**PLS 371 Government and Politics of the Middle East. Three sem hours**

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 211 European Political Systems or permission of the department.

**PLS 372 Government and Politics of Sub-Sahara Africa. Three sem hours**

Africa as a case study in the field of comparative politics, tribal political systems, European colonial policies, nationalist movements, multi-racial conflict and politics of independent states in Sub-Sahara Africa.  
Prereq: PLS 211 European Political Systems or permission of the department.

**PLS 377, 378, 379 Special Studies in Political Science. One, two, three sem hours**

An examination of a topic in political science not normally covered in the curriculum in which the distinctive concerns and methodology 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 381 Public Policy Analysis. Three sem hours**

An advanced course in public administration dealing with modern administrative techniques, budget analysis, the politics of resource allocation, and regulatory problems.  
Prereq: PLS 270 Introduction to Public Administration.

**PLS 382 Politics and the 21st Century. Three sem hours**

A study of the political and public policy directions of the future. Consideration will be given to world-wide political developments and alternative political futures as affected by accelerating socio-political and technological change.  
Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 385 Judicial Process and Behavior. Three sem hours**

A study of the judicial process and behavior in the United States with emphasis on analysis of policy-making by the courts. Federal judicial structures and functions, decision-making procedures, and political ideology and judicial review.  
Prereq: PLS 112 American Government or PLS 113 American Government (honors) or PLS 202 State and Local Government.

**PLS 410 Political Science in Fiction. Three sem hours**

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 9 hours of political science course work completed. Junior or senior status, or permission of the department.

**PLS 415 Classical Political Theory.** Three sem hours  
A study of political theorists in the classical tradition. The course covers writers from the period of Plato to the period of Machiavelli and related material.  
Prereq: PLS 112 American Government.

**PLS 416 Modern Political Theory.** Three sem hours  
A study of political theorists in the modern tradition. The course covers writers from the period of Machiavelli to the end of the nineteenth century and related material.  
Prereq: PLS 112 American Government.

**PLS 418 Recent Political Theory.** Three sem hours  
A comparative study of the so-called "isms"—capitalism, socialism, communism and fascism. Their political aspects and their impact upon democracy will receive special emphasis. Open to juniors and seniors only.  
Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 422 American Political Theory.** Three sem hours  
A concise survey of American political thought. The origins, growth and present state of American political ideologies will be examined.  
Prereq: PLS 112 American Government or PLS 202 State and Local Government.

**PLS 432 Public Bureaucracy in Democratic Society.** Three sem hours  
A study of the role of bureaucracy in democratic society with emphasis on both democratic and administrative values.  
Prereq: PLS 270 Introduction to Public Administration or permission of the department.

**PLS 456 Criminal Law I.** Three sem hours  
A study of criminal law presently 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 American Government or PLS 113 American Government (honors).

**PLS 480 Field Seminar in Political Science/Public Administration.** Three sem hours  
A seminar designed to help students relate their field experience to some aspect of political science or public administration.  
Prereq: Permission of the department.

**PLS 487 Internship in Political Science/Public Administration.** Three sem hours

**PLS 488 Internship in Political Science/Public Administration.** Six sem hours

**PLS 489 Internship in Political Science/Public Administration.** Nine sem hours  
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, and to other students.  
Prereq: Permission of the department.

**PLS 497 Individual Studies in Political Science.** One sem hour

**PLS 498 Individual Studies in Political Science.** Two sem hours

**PLS 499 Individual Studies in Political Science.** Three sem hours  
Advanced study on an individual basis in areas in which the department does not offer formal courses. Normally, this course is restricted to political science majors.  
Prereq: Senior standing and permission of the department.

## PRE-LAW CURRICULUM

Adviser Chairman, **David Hortin**  
(487-0057)  
Political Science Department

Most law schools require applicants to have a bachelor's degree. Therefore, the prospective pre-law student is urged to plan a program leading to a bachelor's degree and to select a major no later than the beginning of the junior year. For law school admission requirements, students should consult the catalog of the law school in which they are interested. A collection of catalogs from all parts of the country is maintained by the pre-law adviser and is available for student use.

Law schools do not usually require specific courses for admission and, in general, state that no single pre-law program can be recommended as the best one. Law school admissions officers emphasize their interest in the quality of the student's record and the challenge and the breadth of his or her program. One catalog says that, "the lawyer's range of knowledge should be as broad as it is humanly possible to make it without undue dilution."

The breadth of the program should not result in mere scattered elections. Some concentration in subjects such as history, English literature and composition, economics and political science is frequently suggested, and these fields are often selected as majors by pre-law students, but they are not the only fields selected. Courses in foreign language, philosophy, mathematics, the sciences, psychology, sociology, speech, constitutional law and business law are often good choices for the more than 30 hours of electives available to the pre-law student. Many law schools require up to six semester hours of accounting at the college level or equivalent extra instruction after admission. Any demanding course that will sharpen the students' command and mastery of the use of language, develop their critical understanding of human values and institutions, or stretch their capacity for independent, searching, creative thinking will be of value to them.

Competition for admission to all professional schools is intensifying. If students contemplating law school are not achieving at least a 2.8 grade point average by their junior year, they are well-advised to plan a program that will also prepare for an alternate vocational goal.

Almost all law schools require applicants to submit scores on the Law School Admission Test, usually taken during the fall semester of the senior year. The pre-law student can get application forms for the test and information about it by writing to Law School Admission Test, Educational Testing Service, Box 944, Princeton, New Jersey 08640, or they are available from the pre-law adviser. The tests are usually given in October, December, February, April and July of each year at selected locations throughout the United States and abroad. Applications for the test must reach ETS at least one month before the date of the test.

Pre-law students should follow either the Bachelor of Science Curriculum on page 31 or the Bachelor of Arts Curriculum on page 31.

Entering freshmen who have not made tentative choices of their major will be assigned to one of the pre-law advisers for undecided students while they explore in search of a major; then they will be assigned to an adviser in their major field. The choice must be made by the junior year.

## POLITICAL SCIENCE

Adviser Chairman, **James Johnson**  
(487-0063)  
Department of Political Science

Political science investigates the ways in which people govern themselves. Students of political science are interested in the preconditions for governments and evolution of governments. They want to know how governments are structured, how governments make decisions, as well as the content of the decisions, and how governments solve societal conflicts. In addition, political scientists retain their concern with the fundamental question of how governments ought to be constituted.

Recent studies indicate that students who major in political science have traditionally gone into careers in business, law, teaching, journalism and government. Other career alternatives include employment in international organizations, public and private interest groups, and research organizations. Finally, political science training can open doors into activities that can be most rewarding on a voluntary or part-time basis: practical politics, community organization, "good government" groups, and political offices at the local level.

Students majoring in political science must complete at least three advanced courses numbered 300 or above at EMU; students minoring in political science must complete at EMU at least two advanced courses numbered 300 or above.

### Major (30 semester hours)

	Semester Hours
A. Required course .....	3
PLS 112 American Government or	
PLS 113 American Government, Honors	
B. Elect at least six courses from the following, including one course in each of the four categories: .....	18
I. Political Enquiry: Theory and Methods	
PLS 210 Comparative Political Analysis	
PLS 310 Scope and Methods of Political Science	
PLS 410 Political Science in Fiction	
PLS 415 Classical Political Theory	
PLS 416 Modern Political Theory	
PLS 418 Recent Political Theory	
PLS 422 American Political Theory	
II. American Politics	
PLS 202 State and Local Government	
PLS 216 Municipal Government	
PLS 270 Introduction to Public Administration	
PLS 280 The American Presidency	
PLS 301 The American Legal System	
PLS 327 American Foreign Policy Process	
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 359 Public Opinion Propaganda	
PLS 364 Legislative Process	
PLS 381 Public Policy Analysis	
PLS 385 Judicial Process and Behavior	

- III. Foreign Political Systems
  - PLS 211 European Political Systems
  - PLS 212 Asian Political Systems
  - PLS 354 Government and Politics of Canada
  - PLS 361 Government and Politics of the U.S.S.R.
  - 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
- IV. International Politics and Relations
  - PLS 271 Introduction to International Relations
  - PLS 327 American Foreign Policy Process
  - PLS 341 International Law
  - PLS 342 International Organization
  - PLS 362 Foreign Relations of the Soviet Union

C. Electives in Political Science to complete 30 hours .....

9

### Minor (20-21 semester hours)

	Semester Hours
A. Required course:	
PLS 112 American Government or PLS 113 American Government (honors) .....	3
B. Elect at least four courses listed above, including one course each from three of the four fields	12
C. Electives in Political Science to complete 20-21 hours .....	6

**Note:** A maximum of six semester hours of Independent Studies, or Internship, or a combination of both, may be applied to political science major requirements, and a maximum of four semester hours of Independent Studies, or Internship, or a combination of both, may be applied to political science minor requirements. Internship and Independent Studies courses in excess of these limits shall be regarded as free electives.

## PUBLIC ADMINISTRATION PROGRAM

Adviser Chairman, **Benjamin Hourani**  
(487-0060)  
Department of Political Science

### Major (36 semester hours) Non-Teaching

Combining course work, research projects and field experience, this interdisciplinary program in Public Administration offers students an opportunity to earn a Bachelor of Science degree while, at the same time, preparing them for beginning staff level positions in public and private agencies. Although the program emphasizes vocational knowledge and skills, it also prepares the student for graduate and professional schools in such fields as business, public administration, and law.



	Semester Hours
Required courses: .....	27
PLS 270 Public Administration .....	3
ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
SOC 105 Introductory Sociology .....	3
**MGT 386 Organization Theory and Development .....	3
ECO 350 Public Finance .....	3
ACC 246 Accounting for Public Administrators .....	3
PLS 381 Public Policy Analysis .....	3
ORI 215 Computers in Business .....	3
One course from each of the following three categories: .....	9
ECO 310 Economic Statistics or	
SOC 250 Elementary Social Statistics or	
ORI 265 Business Statistics I .....	3
PLS 310 Scope and Methods of Political Science	
or	
SOC 304 Methods in Sociological Research ..	3
PLS 352 Politics of Government Budgeting or	
PLS 216 Municipal Government or	
PLS 330 Urban Politics .....	3

The standard public administration program requires students electing the public administration major above to select one of the five cognate fields of concentration listed below, which will then meet the requirements of a minor for graduation. Upon petition to the department, approval may in some cases be given students to utilize other appropriate minors offered by the University.

### Fields of Concentration

(21 semester hours) Non-Teaching

#### Public Sector Management

This concentration seeks to impart a broad understanding of the management process. To the extent the problems of management are universal, students concentrating in public sector management find employment in a wide variety of settings.

The four courses below are required of all concentrators:

- MGT 202 Business Communication
- ACC 240 Principles of Accounting
- MGT 384 Personnel Administration
- ADS 408 Administrative Law

Concentrators in public sector management are also given the opportunity to gain some competence in one of the following areas: (A) personnel, (B) financial management, (C) information systems and (D) public relations. Students should, therefore, expect to take three courses out of one of the following groups or to work out a special program of electives with the approval of the adviser.

- A. LAW 403 Labor Law
  - MGT 482 Wage and Salary Administration
  - MGT 484 Management-Union Relations
  - MGT 485 Training Function in Organizations
  - MGT 486 Strategies for Organizational Development
  - MGT 496 Current Issues in Personnel
- B. ACC 241 Principles of Accounting
  - ACC 346 Government Accounting
  - ACC 446 Financial Information Systems
  - FIN 350 Principles of Finance
  - FIN 359 Intermediate Financial Theory
  - ECO 455 Economic Efficiency in Public Sector
  - INS 351 Introduction to Risk and Insurance

- C. ORI 219 COBOL Programming
  - ORI 317 System Simulation
  - ORI 415 Applied Data Structures
  - ORI 417 Development of Management Information Systems
- D. MKT 369 Advertising
  - MKT 470 Marketing Research
  - \*MKT 473 Marketing Environment
  - MKT 474 Promotional Strategy
  - MGT 480 Management Responsibility in Society

#### Urban Affairs and Community Development.

The student concentrating in urban affairs and community development is expected to acquire competence in using the tools of several disciplines in analyzing urban problems. The student should also obtain an understanding of the political, economic and social factors that shape urban policy. Graduates who concentrate in this field have an opportunity for service at national, state and local levels of government and with community action groups and other non-government institutions.

The four courses below are required of all concentrators:

- GEO 332 Urban Geography
- ECO 332 Urban Economics
- HIS 362 United States Urban History
- SOC 306 The Urban Community

Concentrators in urban affairs and community development should expect to take one related public administration or urban affairs elective and one course from each of the following groups:

- A. PLS 216 Municipal Government
  - PLS 330 Urban Politics
- B. ENG 225 Intermediate English Composition
  - ENG 325 Expository Writing

#### Human Resources Administration.

This concentration is concerned with the critical problem of developing human resources, especially among disadvantaged groups. Students concentrating in human resources administration have a variety of career alternatives available ranging from social science administration to law enforcement and rehabilitation. The two courses below are required:

- SOC 308 Social Psychology (PSY 308)
- PLS 301 The American Legal System

Concentrators should also expect to take one course from each of the following groups:

- A. PLS 358 Parties, Elections and Interest Groups
  - PLS 359 Public Opinion and Propaganda
  - PLS 364 Legislative Process
- B. SOC 314 Racial and Cultural Minorities
  - PSY 340 Psychological Perspectives on Prejudice and Discrimination
  - HIS 315 History of Black Americans
  - SOC 311 Social Gerontology
- C. SOC 371 Crime and Delinquency
  - SOC 372 Criminal Justice in Modern Society
  - SWK 120 Introduction to Social Work Services and Professional Roles
- D. SOC 306 Urban Community
  - ECO 332 Urban Economics
  - GEO 332 Urban Geography
  - HIS 362 United States Urban History
- E. ENG 225 Intermediate English Composition
  - ENG 325 Expository Writing

\*\*For public administration students, PLS 270 Public Administration will satisfy the prerequisite for this course.

\*For public administration students, MKT 360 or 369 will meet prerequisites for this course.

**Intergovernmental Relations and Public Development.**

This concentration is designed for students whose primary interest is in the political and legal (as opposed to the managerial) aspects of public administration. The three courses listed below are required of all concentrators.

- PLS 432 Public Bureaucracy in a Democratic Society
- PLS 332 Intergovernmental Relations and Federalism
- PLS 352 Politics of Government Budgeting  
(if not taken in major)

Concentrators in intergovernmental relations and public development should expect to take one or two electives in political science or economics and one course from each of the following groups:

- A. ECO 323 Labor and Government
- ECO 365 Public Utility Economics
- ECO 366 Economics of Transportation
- ECO 455 Economic Efficiency in the Public Sector
- B. PLS 301 The American Legal System
- PLS 312 American Constitutional Law I
- PLS 313 American Constitutional Law II
- C. PLS 358 Parties, Elections and Interest Groups
- PLS 359 Public Opinion and Propaganda
- PLS 364 Legislative Process
- D. ENG 225 Intermediate English Composition
- ENG 325 Expository Writing

**Urban and Regional Planning.**

The need for coordinated development in urban areas is now widely recognized. Naturally, the need for urban planners, educated both in physical design and in public policy development, is growing. Students in urban and regional planning are prepared for positions in planning agencies, map or cartographic units and research staffs. At the national level, positions are available with the Department of Transportation and Department of Housing and Urban Development.

- A. Required course:
  - GEO 315 Land Use Planning
- B. Choose one of the following:
  - GEO 300 Location and Site Analysis
  - GEO 495 Environmental Impact Assessment
- C. Choose one of the following:
  - GEO 301 Cartography
  - GEO 305 Aerial Photograph Interpretation
- D. Choose one of the following:
  - GEO 438 Industrial Location
  - RES 210 Real Estate Principles and Practices
  - ECO 338 Land Economics
- E. Choose two of the following:
  - GEO 235 Economic Geography
  - GEO 361 Geography of Population
  - GEO 441 Transportation Geography
  - ECO 366 Economics of Transportation
  - SOC 334 Population
- F. Choose one of the following:
  - GEO 332 Urban Geography
  - SOC 306 The Urban Community
  - ECO 332 Urban Economics
  - PLS 330 Urban Politics
  - HIS 362 United States Urban History

**Note:** With the permission of the department, a total of six semester hours of Internship and an additional three semester hours of Independent Studies may be applied to the Public Administration Program requirements. However, for Public Administration students who concentrate in Public Sector Management the maximum shall consist of six hours. In such cases either six semester hours of Internship or three semester hours of Internship and three semester hours of Independent Study may be applied to program requirements. Internship and Independent Studies credit in excess of these limits shall be regarded as free electives.

**Minor in Public Administration (24 semester hours) Non-Teaching**

	<b>Semester Hours</b>
Required courses: . . . . .	6
PLS 270 Introduction to Public Administration . . . . .	3
PLS 381 Public Policy Analysis . . . . .	3
Elect at least three courses from the following, including either ACC 246, or ORI 215, or SOC 250, or ECO 310 . . . . .	9
ACC 246 Accounting for Public Administrators . . . . .	3
ORI 215 Computers in Business . . . . .	3
SOC 250 Elementary Social Statistics . . . . .	3
ECO 310 Economic Statistics . . . . .	3
ECO 201 Principles of Economics I . . . . .	3
ECO 202 Principles of Economics II . . . . .	3
MGT 386 Organization Theory and Development . . . . .	3
Elect any three courses included anywhere in the undergraduate program in Public Administration . . . . .	9

**Note:** A maximum of four semester hours of Independent Studies, or Internship, or a combination of both, may be applied to Public Administration minor requirements. Internship and Independent Studies courses in excess of these limits shall be regarded as free electives.

**PUBLIC LAW AND GOVERNMENT**

Adviser Chairman, **David Hortin**  
(487-0057)  
Department of Political Science

Through its major or minor in Public Law and Government the department offers students a program which combines a broad foundation in political science with a concentration in the area of public law.

**Major (36 semester hours) Non-Teaching**

	<b>Semester Hours</b>
A. Required courses . . . . .	9
PLS 301 American Legal System	
PLS 312 American Constitutional Law I or PLS 313 American Constitutional Law II	
PLS 320 Comparative Legal Systems or PLS 341 International Law	
B. Elect one course in three of the following four categories: . . . . .	9
I. Political Enquiry: Theory and Methods	
PLS 210 Comparative Political Analysis	
PLS 310 Scope and Methods of Political Science	
PLS 410 Political Science in Fiction	
PLS 415 Classical Political Theory	
PLS 416 Modern Political Theory	
PLS 418 Recent Political Theory	
PLS 422 American Political Theory	
II. American Politics	
PLS 202 State and Local Government	
PLS 216 Municipal Government	
PLS 270 Introduction to Public Administration	
PLS 280 The American Presidency	
PLS 327 American Foreign Policy Process	
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 359 Public Opinion and Propaganda	

# PSYCHOLOGY

Department Head: Barry Fish

Professors: Robert L. Anderson, Francis M. Canter, Dennis J. Delprato, Barry Fish, Monroe Friedman, Peter A. Holmes, Donald E. Jackson, Stuart A. Karabenick, Murray Meisels, Jerry O'Dell, Alida S. Westman, Zakhour I. Youssef

Associate Professors: Barbara E. Brackney, Jeffrey Dansky, Norman Gordon, J. Wesley Jamison, John Knapp, James Roff

Assistant Professors: John McManus, Kenneth Rusiniak

Psychology, as a discipline concerned with the experience, behavior, needs, desires and potentialities of human beings, is basic to many career fields and to any life pursuit where other human beings are encountered. Everyone, in a sense, is and must be a "psychologist."

The undergraduate programs of the Department of Psychology (see page 164) have been developed to:

- A. Provide a general and in-depth survey of the fields of the science of psychology for students in many career fields who expect to work with people and to obtain a better understanding of their own lives. The minor in psychology is recommended.
- B. Prepare the undergraduate student to pursue graduate studies in psychology in order to enter one of the several professional career areas, including clinical psychology, industrial psychology, school psychology, teaching and research in psychology, etc. The major in psychology is ordinarily required for such preparation.
- C. Provide current and sound approaches to problems of topical interest as well as enduring issues in psychology for students who are interested in self-development, apart from obtaining a degree. Psychology department advisers will assist the student in selecting appropriate courses or working out a more extensive program.

## GRADUATE STUDY

The Psychology Department offers graduate work leading to the master's degree in psychology and the specialist's degree in school psychology. For descriptions of graduate courses and programs in the Psychology Department, please consult the Graduate Catalog.

## COURSES

New courses are identified with a bullet •

**PSY 101 General Psychology.** **Three sem hours**  
A broad introductory course prerequisite to all courses in the department. Exposure to psychological research and consideration of the methods, principles and theories evolving from the scientific analysis of behavior. *Not open to students who have earned credit in PSY 102 General Psychology.*

**PSY 102 General Psychology.** **Four sem hours**  
Introduction to methods, principles and theories evolving from the scientific analysis of behavior. Laboratory demonstrations and experiments illustrating selected concepts. *Not open to students who have credit in PSY 101 General Psychology. Includes laboratory: two hours per week.*

**PSY 203 Self-analysis and Control** **Three sem hours**  
The study of behavioral principles and techniques that can be applied to behavioral self-analysis and self-management. Student-initiated self-improvement projects will be encouraged.  
*Prereq: PSY 101 or PSY 102 General Psychology.*

PLS 364 Legislative Process  
PLS 381 Public Policy Analysis

- III. Foreign Political Systems
  - PLS 211 European Political Systems
  - PLS 212 Asian Political Systems
  - PLS 354 Government and Politics of Canada
  - PLS 361 Government and Politics of the U.S.S.R.
  - 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
- IV. International Politics and Relations
  - PLS 271 Introduction to International Relations
  - PLS 327 American Foreign Policy Process
  - PLS 342 International Organization
  - PLS 362 Foreign Relations of the Soviet Union

- C. Elect any four courses from the following: . . . . . 12
  - PLS 320 Comparative Legal Systems
  - PLS 312 American Constitutional Law I
  - PLS 313 American Constitutional Law II
  - PLS 315 Consumer Law and Politics
  - PLS 341 International Law
  - PLS 385 Judicial Process and Behavior
  - PLS 456 Criminal Law I
  - PLS 480 Field Seminar in Public Law and Government
  - PLS 487, 488, 489 Internship in Public Law and Government
  - PLS 497, 498, 499 Individual Studies
- D. Two courses offered by the Departments of Sociology and History and Philosophy . . . . . 6
  - HIS 411 United States Constitutional History or
  - PHI 355 Philosophy of Law
  - SOC 412 Law and Society or
  - SOC 460 Introduction to Criminal Law

Minor (24 semester hours) Non-Teaching

- |                                                                                  | Semester Hours |
|----------------------------------------------------------------------------------|----------------|
| A. Required courses: . . . . .                                                   | 6              |
| PLS 301 American Legal System                                                    |                |
| One of the following:                                                            |                |
| PLS 312 American Constitutional Law I or                                         |                |
| PLS 313 American Constitutional Law II or                                        |                |
| PLS 320 Comparative Legal Systems or                                             |                |
| PLS 341 International Law                                                        |                |
| B. Elect one course in two of the four categories listed under B above . . . . . | 6              |
| C. Elect any three courses listed under C above . . . . .                        | 9              |
| D. Elect one of the following courses: . . . . .                                 | 3              |
| HIS 411 United States Constitutional History                                     |                |
| PHI 355 Philosophy of Law                                                        |                |
| SOC 412 Law and Society                                                          |                |
| SOC 460 Introduction to Criminal Law                                             |                |
| LAW 403 Labor Law                                                                |                |
| LAW 408 Administrative Law                                                       |                |

Note: A maximum of six semester hours of Independent Studies, or Internship, or a combination of both, may be applied to Public Law and Government major requirements, and a maximum of four semester hours of Independent Studies, or Internship, or a combination of both, may be applied to Public Law and Government minor requirements. Internship and Independent Studies courses in excess of these limits shall be regarded as free electives.

**PSY 205 Quantitative Methods in Psychology.****Three sem hours**

An introduction to the basic concepts and methods used in the analysis of psychological data. Methods of describing groups of data and of determining individuals' positions in groups will be studied, as will means of determining relationships and differences between groups.

Prereq: PSY 101 or PSY 102 General Psychology and MTH 104 Intermediate Algebra, or equivalent.

**PSY 207 Psychology of Adjustment.****Three sem hours**

Systematic presentation of issues, concepts, principles and theories in the study of human adjustment.

Prereq: PSY 101 or PSY 102 General Psychology.

**PSY 225 Psychology of Religion.****Three sem hours**

Examines the application of psychological theory, principles and method to the study of religious behavior. Particular emphasis is given to the relationships between religion and personality, health-pathology, social behavior and intense emotional experience.

Prereq: PSY 101 or PSY 102 General Psychology.

**PSY 240 Psychology of Sex.****Three sem hours**

An introduction to the psychological basis of human sexual behavior. Survey of the literature concerned with human sexuality from a psychological point of view with an emphasis on research findings.

Prereq: PSY 101 or PSY 102 General Psychology.

**PSY 242 Psychology of Women.****Three sem hours**

An introduction to theories and research concerning personality development in females. Examination of the origins of the behavior of women.

Prereq: PSY 101 or PSY 102 General Psychology.

**PSY 301 Introductory Experimental Psychology.****Four sem hours**

Design, control and measurement techniques employed in the scientific investigation of behavior: e.g., motivation, emotion, perception and learning. Lecture and laboratory.

Prereq: PSY 205 Quantitative Methods in Psychology.

**PSY 304 Learning.****Three sem hours**

An examination of research and theories of learning as developed by Thorndike, Guthrie, Tolman, Hull, Skinner, Mowrer and others, plus selected contemporary topics.

Prereq: PSY 301 Introductory Experimental Psychology.

**PSY 308 Social Psychology.****Three sem hours**

An introductory study of the order and regularity underlying processes of human interaction. Motives and attitudes, social norms and roles, the socialization process, personality and group membership are discussed. The effect of group membership upon individual behavior is stressed.

Prereq: SOC 105 Introductory Sociology, and PSY 101 or PSY 102 General Psychology. Credit can not be earned in both PSY 308 Social Psychology and SOC 308 Social Psychology.

**PSY 321 Child Psychology.****Three sem hours**

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 is on developmental trends. Not open to students on early elementary curriculum.

Prereq: PSY 101 or PSY 102 General Psychology.

**PSY 322 Psychology of Adolescence.****Three sem hours**

Provides the student 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 or PSY 102 General Psychology.

**PSY 323 Psychology of Human Aging.****Three sem hours**

An attempt to place aging individuals in the context of their life span and to discuss the special problems of the aged in modern American society. Special emphasis on intellectual functioning, socialization and personality, environmental effects and the problems of isolation and institutionalization.

Prereq: PSY 101 or PSY 102 General Psychology.

**PSY 330 The Psychology of Contemporary Issues.****Three sem hours**

The application of psychological principles and methodology to selected contemporary world problems such as arms control, disarmament and cybernetics.

Prereq: PSY 101 or PSY 102 General Psychology.

**PSY 340 Psychological Perspectives on Prejudice and Discrimination.****Three sem hours**

The psychological processes underlying the phenomena of prejudice and discrimination. Primary attention to 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 or PSY 102 General Psychology and sophomore.

**PSY 350 Environmental Psychology.****Three sem hours**

An examination of the psychological effects of various environmental settings and configurations on human behavior. Entities to be studied include selected qualities of architectural spaces, urban environments and natural settings.

Prereq: PSY 101 or PSY 102 General Psychology.

**PSY 351 Industrial Psychology.****Three sem hours**

Applications of psychological methods and principles to industrial problems.

Prereq: PSY 101 or PSY 102 General Psychology and junior or senior.

**PSY 352 Psychological Testing and Evaluation.****Three sem hours**

Principles and theory of psychological testing. Introduction to evaluation, administration and interpretation of group and individual tests used in diagnosis and prognosis.

Prereq: PSY 101 or PSY 102 General Psychology and junior or senior.

**PSY 356 Motivation.****Three sem hours**

Review and analysis of research and theory on the determinants of the direction, persistence, and vigor of behavior.

Prereq: PSY 301 Introductory Experimental Psychology.

**PSY 357 Sensation and Perception.****Three sem hours**

Analysis of the dimensions of sensory experience and their integration into percepts, including an examination of theories of perception.

Prereq: PSY 301 Introductory Experimental Psychology.

**PSY 358 Cognitive Processes.** Three sem hours  
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 Quantitative Methods in Psychology or equivalent.

**PSY 360 Abnormal Psychology.** Three sem hours  
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 or PSY 102 General Psychology and junior or senior.

**PSY 361 Psychotherapy.** Three sem hours  
Survey of therapeutic systems and research on psychotherapy.  
Prereq: PSY 360 Abnormal Psychology.

**PSY 365 Behavior Modification.** Three sem hours  
Students in psychology, special education, social work, nursing and related fields are taught behavioral techniques designed for coping with problem behaviors. Training in practical observation and recording procedures, program evaluation designs, and behavior change principles.  
Prereq: PSY 101 or PSY 102 General Psychology.

• **PSY 387 Cooperative Education in Psychology.** Three sem hours  
Four months of full-time employment at an individual employer chosen to provide practical experience in the student's major field. The cooperative program consists of two work experiences (PSY 387 and 487) alternated with full-time attendance at the University.

**PSY 388 Psychology in the Field Setting.** Two sem hours  
Supervised work in mental health field settings which provides opportunities for experiences relevant to the field of psychology, with focus on the integration of psychological materials and methods with practical work experience. Approximately three hours of field work each week and completion of a journal of goals and experiences are required.  
Prereq: PSY 101 or PSY 102 General Psychology, concurrent enrollment in a three hour psychology class and/or permission of the department.

**PSY 397, 398, 399 Individual Reading in Psychology.** One, two, three sem hours  
Supervised reading on psychological problems.  
Prereq: PSY 101 or PSY 102 General Psychology and prior departmental approval of a planned reading program.

**PSY 445 Consumer Psychology.** Two sem hours  
A survey of psychological principles, theories and methodology relating to consumer behavior.  
Prereq: PSY 101 or PSY 102 General Psychology.

**PSY 448 Seminar in Psychology.** Two sem hours  
Provides an opportunity to synthesize various approaches to the study of psychology. Opportunities for development, presentation and critical appraisal of individual student projects. Open to seniors majoring or minoring in psychology.

**PSY 450 Psychology of Individual Differences.** Two sem hours  
Analysis of research on variability between individuals and groups as per intelligence, aptitudes, achievement, motivation, perception and attitudes.  
Prereq: PSY 101 or PSY 102 General Psychology.

**PSY 451 Dynamics of Personality.** Three sem hours  
Integration of the physiological, psychological and cultural determinants of human personality and analysis of selected theories of human personality.  
Prereq: Six hours in psychology and junior or senior standing.

**PSY 453 History and Systems of Psychology.** Three sem hours  
Historical development of modern psychological theories, with emphasis on contemporary systems, including functionalism, behaviorism, phenomenology, psychoanalysis and dynamic psychologies.  
Prereq: Twelve hours of psychology and senior standing.

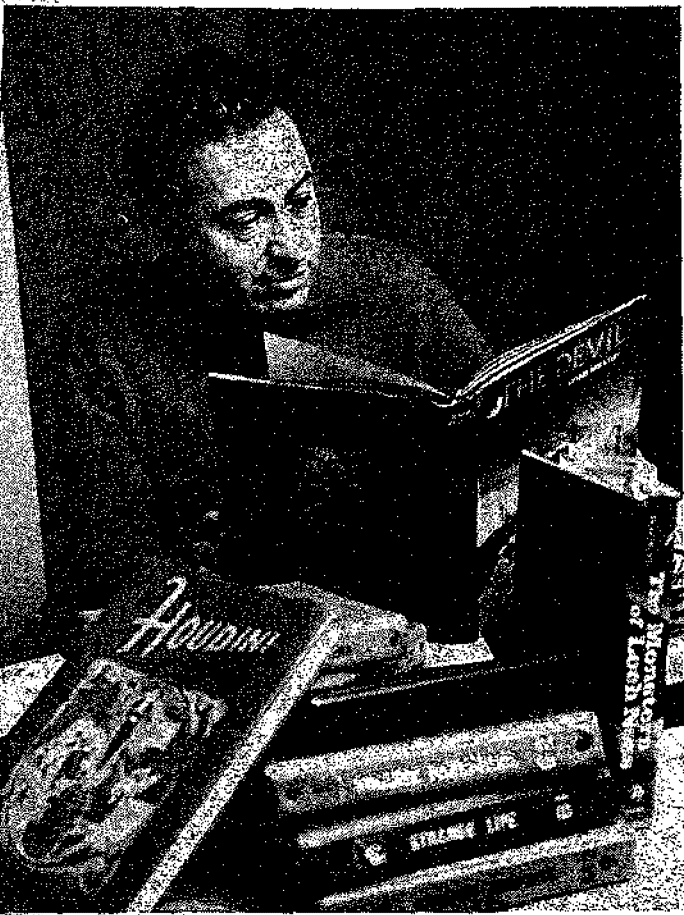
**PSY 457 Physiological Psychology.** Three sem hours  
Analysis of the relationships between physiological processes and behavior. Open to junior and senior science majors with permission of the department.  
Prereq: PSY 301 Introductory Experimental Psychology, and BIO 105 Biology and the Human Species or ZOO 222 General Zoology.

**PSY 458 Comparative Psychology.** Three sem hours  
Exploration of modern solutions to the innate versus learned behavior controversy and an examination of species differences with respect to behavior and behavioral capacities.  
Prereq: PSY 301 Introductory Experimental Psychology.

**PSY 478, 479 Special Topics in Psychology.** Two or three sem hours  
An examination of topics in psychology not covered in other departmental offerings. May be elected more than once as long as different topics are studied.  
Prereq: PSY 101 or PSY 102 General Psychology and departmental permission.

• **PSY 487 Cooperative Education in Psychology.** Four sem hours  
Four months of full-time employment at an individual employer chosen to provide practical experience in the student's major field. The cooperative program consists of two work experiences (PSY 387 & 487) alternated with full-time attendance at the University.

**PSY 497, 498, 499 Individual Research in Psychology.** One, two, three sem hours  
Supervised investigation of psychological problems.  
Prereq: PSY 205 Quantitative Methods in Psychology and permission of the department.



## SOCIOLOGY

**Department Head:** Marcello Truzzi  
**Professors:** Allen S. Ehrlich, Werner Einstadter, S. Joseph Fauman, Edward Green, Lawrence K. Kersten, Patricia Ryan, Marcello Truzzi, Bruce L. Warren  
**Associate Professors:** Patrick Easto, Kaja Finkler, Gordon E. Moss, Marie Richmond-Abbott, Karen P. Sinclair, David W. Stupple, Ira M. Wasserman, Ronald M. Westrum  
**Assistant Professors:** Nancy N. Thalhofer

The Sociology Department includes majors and minors in the disciplines of sociology, anthropology, and criminal justice and criminology. The department participates in the Social Work Curriculum and the majors and minors in Area Studies (Africa, Asia/Far East, Latin America, Middle East/ North Africa, Soviet Union) and the programs in gerontology, bilingual-bicultural education, and women studies.

## GRADUATE STUDY

The Sociology Department offers graduate work leading to the master's degree in sociology and criminology and criminal justice. For description of graduate courses and programs in the department, please consult the Graduate Catalog.

## SOCIOLOGY COURSES

New courses are identified with a bullet •.

## PSYCHOLOGY

**Adviser Chairman, Barry Fish**  
 (487-2037)

**Major (30 semester hours)**

	Semester Hours
Required courses: .....	13-14
PSY-101 or PSY 102 General Psychology .....	3-4
PSY 205 Quantitative Methods in Psychology ..	3
PSY 301 Experimental Psychology .....	4
PSY 453 History and Systems of Psychology ...	3
Restricted electives of one each from the following groups: .....	12
Group A - Adjustment and Personality	
PSY 360 Abnormal Psychology .....	3
PSY 451 Dynamics of Personality .....	3
Group B - Biological	
PSY 357 Sensation and Perception .....	3
PSY 457 Physiological Psychology .....	3
PSY 458 Comparative Psychology .....	3
Group C - Learning and Motivation	
PSY 304 Learning .....	3
PSY 356 Motivation .....	3
Group D - Developmental	
PSY 321 Child Psychology .....	3
PSY 322 Psychology of Adolescence .....	3
Electives by advisement .....	5-4

**Minor (20 semester hours)**

	Semester Hours
PSY 101 or PSY 102 General Psychology .....	3-4
Electives in psychology .....	17-16
(as approved by psychology adviser)	

**SOC 105 Introductory Sociology.** **Three sem hours**  
 A number of basic sociological concepts are used to analyze selected aspects of American society in intergroup relations, rural and urban communities, social classes and in family, educational, religious, governmental and economic institutions.

**SOC 202 Social Problems.** **Three sem hours**  
 A sociological analysis of problems arising in contemporary American society in connection with the organization of social behavior in selected areas of social life, such as child rearing, relations between the sexes, crime and delinquency, relations between racial and cultural sub-groups, and personality disorders.  
*Prereq: SOC 105 Introductory Sociology.*

**SOC 204 Marriage and Family.** **Three sem hours**  
 Provides information pertinent to the position and significance of the family in our changing society. Information drawn from sociology, social psychology and psychology is applied to courtship and mate selection, as well as to problems of marital adjustment.  
*Prereq: SOC 105 Introductory Sociology.*

**SOC 250 Elementary Statistics.** **Three sem hours**  
 Course introduces students to nature of empirical data, the organization of univariate data, and the general character of statistical inference. The course will have two hours of lecture and a two-hour laboratory in which the student will apply the above knowledge.  
*Prereq: SOC 105 Introductory Sociology, high school algebra or equivalent.*

**SOC 278, 378, 478 Current Topics in Sociology.**

**Three sem hours each**  
Each semester offered, a single topic is covered. The topic may change each semester as the interest and/or problem changes. Students may elect this course several times as long as different topics are studied, but it may be taken only twice for credit towards a major or minor in sociology.  
Prereq: SOC 105 Introductory Sociology.

**SOC 303 Sociology of Childhood and Youth.**

**Three sem hours**  
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 Introductory Sociology.

**SOC 304 Methods in Sociological Research.**

**Three sem hours**  
An examination of the methods currently employed in sociological research as well as a review of the many types of application now being made. Laboratory work includes participation in the conduct of a survey.  
Prereq: Three courses in sociology and junior standing.

**SOC 306 The Urban Community.**

**Three sem hours**  
Ecological and social organization of urban life. Special emphasis upon the metropolitan trend in the United States and the social problems created by it.  
Prereq: SOC 105 Introductory Sociology.

**SOC 307 Industrial Sociology.**

**Three sem hours**  
The social structure of the workplace, the work experience of the participants and the relation of both to the community and to society. Particular attention is given to the formal structure of large-scale organizations and the operation of small groups within them.  
Prereq: SOC 105 Introductory Sociology.

**SOC 308 Social Psychology.**

**Three sem hours**  
An introductory study of the order and regularity underlying processes of human interaction. Motives and attitudes, social norms and roles, the socialization process, personality and group membership are discussed. The effect of group membership upon individual behavior is stressed.  
Prereq: SOC 105 Introductory Sociology and PSY 101 General Psychology. Credit cannot be earned in both SOC 308 Social Psychology and PSY 308 Social Psychology.

**SOC 309 Culture and Personality.**

**Three sem hours**  
An analysis of the manner in which group and cultural factors influence the growth and change of personality. Some attention is given to the impact of personality types on group life. The same as Anthropology 309.  
Prereq: SOC 105 Introductory Sociology or ANT 135 Cultural Anthropology and PSY 101 General Psychology. Not open to those with credit in ANT 309.

**SOC 310 Contemporary American Class Structure.**

**Three sem hours**  
An analysis of the determinants and consequences of social class structure in America. Various theoretical perspectives are used to examine the nature of social classes, status groups and the distribution of power. The relationships between social class and the family, schools, government, religion and recreation are studied both with reference to the total system and to various racial and regional sub-systems.  
Prereq: SOC 105 Introductory Sociology.

**SOC 311 Social Gerontology.**

**Three sem hours**  
Analysis of the 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 Introductory Sociology.

**SOC 312 Medical Sociology.**

**Three sem hours**  
The examination of social behavior and social organization as factors in disease distribution. The sociological analysis of medical care, organization and practitioners.  
Prereq: SOC 105 Introductory Sociology and sophomore standing.

**SOC 314 Racial and Cultural Minorities.**

**Three sem hours (formerly 214)**  
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 Introductory Sociology.

**SOC 334 Population.**

**Three sem hours**  
Population size and composition and their dynamics as basic social science data. Vital phenomena and migration. The relationship between human numbers and resources and its politico-economic implications. Population theories and policies of population control.  
Prereq: SOC 105 Introductory Sociology or department permission.

**SOC 335 The Study of Non-Primitive Societies.**

**Three sem hours**  
An analysis of the studies and problems which anthropology has investigated in non-primitive societies. Topics to be covered will include problems of analysis in complex societies, national character, folk-urban continuum, peasants and colonialism. The same as ANT 335.  
Prereq: ANT 135 Introduction to Cultural Anthropology or equivalent and sophomore standing. Not open to those with credit in ANT 335.

**SOC 336 Social and Cultural Change.**

**Three sem hours**  
A survey of the theories and problems of change in primitive and advanced societies. The same as ANT 336.  
Prereq: ANT 135 Introduction to Cultural Anthropology or equivalent and sophomore standing. Not open to those with credit in ANT 336.

**SOC 345 Field Methods in Community Studies.**

**Three sem hours**  
This course is designed for students interested in doing ethnographic research within the vicinity of the University by use of anthropological field techniques. Students will select topics for investigation which they will study by participant observation and other anthropological field methods. The data will then be discussed and examined from a cross-cultural perspective. The same as Anthropology 345.  
Prereq: Nine hours in anthropology or permission of the department. Not open to those with credit in ANT 345.

**SOC 362 Complex Organizations.**

**Three sem hours**  
The study of several kinds of large organizations with an emphasis on the nature of bureaucratic organizations. The course will cover both theoretical and empirical studies of organizational growth, recruitment, control, and relations between organizations.  
Prereq: SOC 105 Introductory Sociology.

**SOC 371 Crime and Delinquency. Three sem hours**

The nature, incidence and explanation of the forms of law-breaking behavior, including crime and delinquency.

Prereq: SOC 105 Introductory Sociology or junior standing. Not open to freshmen.

**SOC 372 Criminal Justice in Contemporary Society. Three sem hours**

A critical view of the entire spectrum of criminal justice. The police, courts and corrections will be studied as interrelated institutions in the process of defining criminals.

Prereq: SOC 105 Introductory Sociology or junior standing. Not open to freshmen.

**SOC 375 Political Sociology. Three sem hours**

An analysis of the structure of political systems from an individual and social system perspective.

Prereq: Nine credit hours in sociology or political science or junior-senior standing.

**SOC 379, 479 Current Topics in the Sociology of Crime. Three sem hours**

This project-oriented course is designed to deal with one or two issues in law, crime and justice. Each issue will be covered in depth during the semester. Topics may vary.

Prereq: Permission of instructor or SOC 371 Crime and Delinquency or SOC 372 Criminal Justice and junior standing.

**SOC 402 Group Dynamics. Three sem hours**

A study of the structure and interaction processes of small groups. Cohesiveness, group standards, conformity and deviance, leadership, group emotion, communication, group roles and sociometrics are discussed. Particular emphasis is given to classroom application.

Prereq: SOC 105 Introductory Sociology or PSY 101 General Psychology.

**SOC 403 Modern Sociological Theory. Three sem hours**

The rise and development of sociological thought from Comte to the present. The works of various European and American schools are analyzed and critically appraised in terms of their value in empirical research.

Prereq: Three courses in sociology and junior standing.

**SOC 405 Honors Seminar. Three sem hours**

An undergraduate honors seminar which will examine selected topics in theory, research, and applied sociology. The course will be team-taught, and topics will be selected by the organizer, often centering around a major theme.

Prereq: Senior status, a 3.0 grade point average, 12 hours of Group III courses, or permission of instructor.

**SOC 412 Law and Society. Three sem hours**

Law as a social and cultural product; the interrelationships between law and social institutions.

Prereq: SOC 105 Introductory Sociology.

**SOC 444 Sociology of Sex Roles. Three sem hours**

Analysis of past, present and future sex roles. Particular emphasis will be placed on 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: Junior standing and either SOC 105 Introductory Sociology or ANT 135 Introduction to Cultural Anthropology.

**• SOC 447 Crime and Public Policy. Three sem hours**

An intensive analysis of selected problems in criminology and the application of criminology to policies and programs of crime prevention and control.

Prereq: SOC 371 Crime and Delinquency or SOC 506 and SOC 372 Criminal Justice in Contemporary Society or SOC 507; or permission.

**SOC 448 Collective Behavior. Three sem hours**

A study of spontaneous, transitory and volatile collective behavior, as contrasted with the relatively stable, institutionalized patterns of interaction. Includes analysis of rumor transmission, crowd behavior, mass behavior and the emergence of organized social movements.

Prereq: SOC 105 Introductory Sociology.

**SOC 450 The Family. Three sem hours**

Study of the family as a basic social institution. Examination of various types of family systems throughout the world with special emphasis on the American family.

Prereq: Junior standing and either SOC 105 Introductory Sociology or SOC 135 Introduction to Cultural Anthropology.

**SOC 460 Criminal Law II. Three sem hours**

The distinguishing characteristics of criminal law and its sources. Topics include problems in determination of criminal liability; crimes against property; the defenses to criminal charges.

Prereq: Junior standing.

**SOC 488 Field Internship in Criminology and Criminal Justice. Three sem hours**

Students are assigned to a governmental or private agency dealing with the crime problem for eight hours weekly. The agency in agreement with the field instructor provides supervised learning experiences appropriate to the objectives of the undergraduate program. A weekly two-hour seminar relates field experience to theory. May be repeated once for credit.

Prereq: Senior standing and SOC 371 Crime and Delinquency and SOC 372 Criminal Justice in Contemporary Society. Second semester juniors may be admitted by permission of the instructor. Requests for admission by students who do not meet these requirements must be approved by the faculty committee on Criminology and Criminal Justice.

**SOC 497, 498, 499 Independent Study.**

One, two, three sem hours each  
Independent study, under the supervision of a department member, in areas for which the department does not offer a course. Normally such work is restricted to advanced proficient students.

Prereq: Permission of the department.

**ANTHROPOLOGY COURSES**

New courses are identified with a bullet •.

**ANT 135 Introduction to Cultural Anthropology. Three sem hours**

The study of 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 are examined in order to provide a comparative background for a better understanding of contemporary societies.



**ANT 140 Introduction to Prehistoric Anthropology.****Three sem hours**

The course will investigate the evolution of human societies using materials from primate studies, early man, and archeological findings.

**ANT 150 Introductory Archeology.****Three sem hours**

A general survey of the field of archeology, focusing upon the methodologies and analyses employed in the study of prehistoric cultures.

Prereq: ANT 135 Introduction to Cultural Anthropology.

**ANT 233 Peoples and Cultures of Mexico.****Three sem hours**

A regional, historical and topical survey of Mexican cultures.

Prereq: ANT 135 Introduction to Cultural Anthropology.

**ANT 234 Peoples and Cultures of Latin America.****Three sem hours**

A regional, historical and topical survey of Latin-American cultures.

Prereq: ANT 135 Introduction to Cultural Anthropology.

**ANT 236 Peoples of Africa.****Three sem hours**

A study of the social and cultural legacy of pre-colonial Black Africa and its transformation and diffusion in the modern world. Includes a survey of major ethnic groupings, social institutions — the family, economy, religion, education and political structures; the impact of Islam and the West; emergent nationalism, current problems in African politics and social life, the dialogue between Black America and Black Africa.

Prereq: ANT 135 Introduction to Cultural Anthropology.

**ANT 237 Indians of North America.****Three sem hours**

A regional, historical and topical survey of aboriginal North American cultures.

Prereq: ANT 135 Introduction to Cultural Anthropology or permission of the department.

**ANT 238 Ethnographic Survey.****Three sem hours**

An ethnographic survey of major culture areas of the world — e.g., the Pacific, Latin America, etc. Each semester it is taught, one cultural area will be covered. Students may elect the course several times as long as different cultural areas are studied.

Prereq: ANT 135 Introduction to Cultural Anthropology.

**ANT 248 Peoples and Cultures of the Pacific.****Three sem hours**

A regional, historical and topical survey of aboriginal Pacific cultures.

Prereq: ANT 135 Introduction to Cultural Anthropology.

**ANT 278, 378, 478 Current Topics in Anthropology.****Three sem hours each**

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 Introduction to Cultural Anthropology.

**ANT 309 Culture and Personality.****Three sem hours**

An analysis of the manner in which group and cultural factors influence the growth and change of personality. Some attention is given to the impact of personality types on group life. The same as SOC 309.

Prereq: SOC 105 Introductory Sociology or ANT 135 Introduction to Cultural Anthropology and PSY 101 General Psychology. Credit cannot be earned in both ANT 309 and SOC 309.

**ANT 329 Cross-Cultural Study of Illness and Curing.****Three sem hours**

This course will look at the ways in which various cultures define, explain, and treat physical and psychic illness. Different approaches to curing will be examined including witchcraft, sorcery, spiritual and psychic healing and the use of hallucinogens. These modes of curing will be compared with contemporary medical practices.

Prereq: ANT 135 Introduction to Cultural Anthropology or permission of the department.

**ANT 330 Anthropology of Law & Politics.****Three sem hours**

The comparative study of political systems in primitive and peasant societies, local-level politics, government and law will be examined from an anthropological perspective.

Prereq: ANT 135 Introduction to Cultural Anthropology and sophomore standing.

**ANT 335 The Study of Non-Primitive Societies.****Three sem hours**

An analysis of the studies and problems which anthropology has investigated in non-primitive societies. Topics to be covered will include problems of analysis in complex societies, national character, folk-urban continuum, peasants and colonialism. The same as SOC 335.

Prereq: ANT 135 Introduction to Cultural Anthropology or equivalent and sophomore standing. Students cannot earn credit in both ANT 335 and SOC 335.

**ANT 336 Social and Cultural Change.****Three sem hours**

A survey of the theories and problems of change in primitive and advanced societies. The same as SOC 336.

Prereq: ANT 135 Introduction to Cultural Anthropology or equivalent and sophomore standing. Students cannot earn credit in both ANT 336 and SOC 336.

**ANT 338 Anthropology of Religion.****Three sem hours**

The anthropological study of religious belief and ritual in primitive and peasant societies.

Prereq: ANT 135 Introduction to Cultural Anthropology and sophomore standing.

**ANT 339 Economic Anthropology.****Three sem hours**

The 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, social organization are examined in detail as well as the effects of an economic system on the individual's behavior.

Prereq: ANT 135 Introduction to Cultural Anthropology and sophomore standing.

**ANT 340 Language and Culture.****Three sem hours**

A study of the relation of language to social behavior and modes of thought in unilingual and multilingual speech communities.

Prereq: ANT 135 Introduction to Cultural Anthropology and sophomore standing. ENG 320 Introduction to Linguistic Science suggested.

**ANT 345 Field Methods in Community Studies.****Three sem hours**

This course is designed for students interested in doing ethnographic research within the vicinity of the University by use of anthropological field techniques. Students will select topics for investigation which they will study by participant observation and other anthropological field methods. The data will then be discussed and examined from a cross-cultural perspective. The same as SOC 345.

Prereq: Nine hours in anthropology or permission of the department. Students cannot earn credit in both ANT 345 and SOC 345 Field Methods in Community Studies.

**ANT 435 Cultural Ecology. Three sem hours**  
 A comparative study of the patterns and processes of adaptation in primitive societies at various levels of socio-political organization.  
 Prereq: Three courses in anthropology and junior standing or permission of the department.

**ANT 437 Kinship and Social Structure. Three sem hours**  
 Comparative analysis of the structure and function of primitive societies with an emphasis upon systems of kinship.  
 Prereq: Three courses in anthropology and junior standing.

**ANT 439 Anthropological Theory. Three sem hours**  
 The study of various theoretical approaches within the field of cultural anthropology. The theoretical perspectives of a number of European and American schools will be discussed from analytical and historical viewpoints.  
 Prereq: Three courses in anthropology and junior standing or permission of the department.

**ANT 441 Seminar in Anthropology. Three sem hours**  
 An intensive study of a problem of current research interest in anthropology. The topic will vary from semester to semester.  
 Prereq: Four courses in anthropology and permission of the department.

**ANT 497, 498, 499 Individual Reading and Research in Anthropology. One, two, three sem hours**  
 Directed reading and research on problems within the field of anthropology. Normally such work is restricted to advanced students.  
 Prereq: ANT 135 Introduction to Cultural Anthropology and permission of the department.

- FA 222 African and Afro-American Art
- FA 420 History of Primitive Art
- ECO 385 Economic Development
- GEO 331 Paleontology
- GEO 360 Cultural Geography
- HIS 103, 301, 302, 305, 355, 356, 357 (Areal History courses)
- HIS 340, 341, 342, 371, 373, 374, 375, 377 and 378 (Non-Western History courses)
- PHI 380 Philosophy of Science
- PLS 212, 367, 371, and 372, (Government and politics of various regions)
- PSY 458 Comparative Psychology
- SOC 214, 250, 310, 320, 334, 403, 444, 450
- SPH 400 Phonetics and Dialects of Spoken English

**Minor in Anthropology (20 semester hours)**  
 Non-teaching

	Semester Hours
ANT 135 Introduction to Cultural Anthropology	3
ANT 140 Introduction to Prehistoric Anthropology	3
One 200 level anthropology course	3
One 300 level anthropology course	3
ANT 439 Anthropological Theory	3
Electives	5

In addition to courses in cultural anthropology, students may choose two of the following as part of their electives;  
 SOC 314 Racial and Cultural Minorities  
 SOC 250 Elementary Social Statistics  
 or any 300 or 400 level Sociology course.

**ANTHROPOLOGY**

**Bachelor of Arts or Bachelor of Science Degree**

Adviser Chairman: **Allen S. Ehrlich**  
 (487-0377)

The program in anthropology, administered through the Sociology Department, advances the goals of liberal education and provides majors with a foundation for graduate study.

**Major in Anthropology (30 semester hours)**  
 Non-teaching

	Semester Hours
ANT 135 Introduction to Cultural Anthropology	3
ANT 140 Introduction to Prehistoric Anthropology	3
ANT 439 Anthropological Theory	3
At least one course at the 200 level (Area Ethnography)	3
At least one other anthropology course at the 300 level (topical)	3
At least one other anthropology course at the 400 level (advanced)	3
	18

The remaining courses to complete the total of 30 semester hours are to be chosen from anthropology courses. The following courses may be substituted for anthropology courses to fulfill the requirements of the major with the permission of the anthropology adviser chairman.

- ZOO 306 or 511 Physical Anthropology
  - ENG 320 Introduction to Linguistic Science
- Recommended electives above and beyond the major requirements:

**CRIMINOLOGY AND CRIMINAL JUSTICE CURRICULUM**

**Bachelor of Arts or Bachelor of Science Degree**

Adviser Chairman, **Edward Green**  
 (487-4246)  
 Sociology Department

The program provides general education in fields dealing with the administration of criminal justice at the level of the police, the court, and corrections. In addition, the program is designed to provide the interested student with a means for the analysis of crime and justice within the framework of broader social processes. It will prepare students for careers in operations and research in public and private agencies concerned with crime and delinquency.

The professional core of the program includes courses in criminology, criminal justice, and law. It is an interdisciplinary curriculum combining a major and minor consisting of 54 hours in the social sciences including social work and 6-7 hours in psychology. Special programs can be tailored in consultation with the faculty adviser. For example, students interested in probation or parole or in areas of social work practice in a criminal justice setting should, in addition, complete the social work minor. Courses in management and business organization appropriate to criminal justice administration may be elected in the College of Business. Areas of knowledge and practice appropriate to corrections - guidance and counseling, family life and psychological testing - are offered by the departments of education, home economics and psychology. Representative offerings are listed below under Additional Electives.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, and III and Humanities.

The outline of the curriculum given below identifies the course requirements by an asterisk (\*) and shows their distribution among the group requirements. These particular requirements specify both courses and the number of hours to be completed.

	Semester Hours
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
Group II Science and Mathematics .....	13-14
Two laboratory science courses from the biology, chemistry, geography, physics or psychology departments (both may be in the same department) or	
One laboratory science course from the above departments, and one mathematics course.	
*PSY 101 or 102 General Psychology .....	3-4
*PSY 207 Psychology of Adjustment or	
*PSY 360 Abnormal Psychology .....	3
Group III Social Sciences .....	51
One course in history .....	3
Political Science	
*PLS 112 American Government or	
*PLS 202 State and Local Government .....	3
*PLS 301 The American Legal System .....	3
*PLS 456 Criminal Law I .....	3
Sociology	
*SOC 105 Introductory Sociology .....	3
*SOC 250 Elementary Social Statistics .....	3
*SOC 304 Methods of Sociological Research .....	3
*SOC 314 Racial and Cultural Minorities .....	3
*SOC 371 Crime and Delinquency .....	3
*SOC 372 Criminal Justice in Contemporary Society .....	3
*SOC 412 Law and Society .....	3
*SOC 447 Crime and Public Policy .....	3
*SOC 460 Criminal Law II .....	3
*Two of the following .....	6
SOC 202 Social Problems	
SOC 204 Marriage and the Family	
SOC 303 Sociology of Childhood and Youth	
SOC 306 Urban Community	
SOC 308 Social Psychology	
SOC 402 Group Dynamics	
SOC 448 Collective Behavior	
SOC 450 The Family	
Social Work	
*SWK 120 Introduction to Social Work Services and Professional Roles .....	3
*SWK 222 Social Welfare Policies and Services .....	3

Humanities .....	11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music, or dramatic arts.	
Group IV Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Free electives .....	37-34
Total .....	122

**Note:** Students completing the above major will have satisfied all major and minor requirements for graduation, and no additional minor is required.

**Additional Electives**

The following courses are pertinent to various fields of criminal justice.

Criminology and Criminal Justice

SOC 379, 479 Current Topics in the Sociology of Crime

SOC 488 Field Internship in Criminology and Criminal Justice

SOC 499 Independent Study in Criminology and Criminal Justice. (Open to juniors/seniors with permission of criminology/criminal justice advising chairman)

SOC 513 Social Deviance. (Open to graduate students and seniors)

**Public Administration and Management**

PLS 270 Public Administration

PLS 381 Public Policy Analysis

MGT 386 Organization Theory and Development

ORI 215 Computers in Business

PLS 216 Municipal Government

MGT 384 Personnel Administration

MGT 496 Current Issues in Personnel

MGT 484 Management-Union Relations

ORI 317 System Simulation

ORI 415 Applied Data Structures

ACC 240 and 241 Principles of Accounting

ACC 246 Accounting for Public Administrators

ACC 346 Governmental Accounting

**Social Work**

SWK 317 Social Work Practice I

SWK 360 Practice Issues Concerning Minorities and Women

SWK 422 Working with the Dependent and Neglected Child

SWK 478, 479 Special Topics in Social Work Practice

Law

- PHI 355 Philosophy of Law
- PLS 312 American Constitutional Law I
- PLS 313 American Constitutional Law II
- ADS 303 Legal Environment of Business
- ADS 408 Administrative Law

Social and Behavioral Dynamics

- PSY 321 Child Psychology
- PSY 322 Psychology of Adolescents
- PSY 330 Psychology of Contemporary Issues
- PSY 340 Psychological Perspectives on Prejudice and Discrimination
- PSY 365 Behavior Modification
- PSY 451 Dynamics of Personality
- SOC 204 Marriage and Family
- SOC 309 Culture and Personality
- SOC 444 Sociology of Sex Roles
- ANT 135 Introduction to Cultural Anthropology
- ANT 330 Anthropology of Law and Politics
- ANT 335 The Study of Non-Primitive Societies
- ANT 336 Social and Cultural Change

Education

- G&C 405 Basic Guidance Concepts and Processes

**Criminology and Criminal Justice Minor (20 semester hours)**  
(Non-Teaching)

	<b>Semester Hours</b>
Required Courses .....	12
PLS 301 The American Legal System .....	3
SOC 371 Crime and Delinquency .....	3
SOC 372 Criminal Justice in Contemporary Society .....	3
SOC 412 Law and Society .....	3
Electives .....	8
PLS 320 Comparative Legal Systems	
PLS 270 Introduction to Public Administration	
PLS 456 Criminal Law I	
PSY 207 Psychology of Adjustment	
PSY 360 Abnormal Psychology	
SOC 402 Group Dynamics	
SOC 446 Collective Behavior	
SOC 466 Introduction to Criminal Law	
ANT 330 Anthropology of Law and Politics	
Any Social Work course at 400 level	
PHI 355 Philosophy of Law	

## SOCIOLOGY

Adviser Chairman: **Marcello Truzzi**  
(487-0012)  
Sociology Department

The program in sociology advances the goals of liberal education and provides majors with a foundation for graduate study, professional education in social work, or teaching sociology in secondary schools.

**Major in Sociology (30 semester hours)**

	<b>Semester Hours</b>
Required Courses .....	30
SOC 105 Introductory Sociology .....	3
ANT 135 Introduction to Cultural Anthropology .....	3
SOC 250 Elementary Social Statistics .....	3
SOC 304 Methods in Social Research .....	3
SOC 308 Social Psychology .....	3
SOC 403 Modern Sociological Theory .....	3
Two of the following .....	6
SOC 306 Urban Community	
SOC 307 Industrial Sociology	
SOC 310 Contemporary American Class Structure	
SOC 362 Complex Organizations	
SOC 405 Honors Seminar	
Electives .....	6

May be taken in sociology, anthropology or social work. (Any courses in social work or anthropology to be counted toward elective credit for the sociology major must be at the 300 level or above.)

**Minor in Sociology (20-21 semester hours)**

	<b>Semester Hours</b>
Required Courses:	
SOC 105 Introductory Sociology .....	3
ANT 135 Introduction to Cultural Anthropology .....	3
Sociology courses at 300 level or above .....	8-9
Electives .....	6

Any course in anthropology to be 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.

## WOMEN'S STUDIES

Coordinator: Daryl Hafter  
 Asst. Coordinator: Rachel Harley  
 Professors: Marjorie Lansing, Judy Loeb, Daryl Hafter, Sally McCracken, Calvin Michael, Brigitte Muller, Mary Robek.  
 Associate Professors: Nadean Bishop, Barbara Brackney, Doris Kilanski, Marie Richmond-Abbott, Mary McCarthy, Ellen Schwartz, Karen Sinclair, Claudia Wasik, Myrna Yeakle.  
 Assistant Professors: Betty Barber

The Women's Studies Program is designed to introduce students to the contribution of women to the arts, sciences and social sciences, and to study the evolving roles of women and men in contemporary society. Each of the courses in the program is open to men and women for elective credit. A twenty-hour minor is available as described in column two of this page.

Descriptions of most of the courses in the program are listed under their respective disciplines, such as history, literature, psychology, sociology, art, business, economics, home economics, speech, education, and physical education.

## COURSES

### WMS 200 Introduction to Women's Studies.

Three sem hours

A team-taught overview of women in society, including historical and literary perspectives of their contributions, and an examination of their present socialization, roles in the family, and status in education, business, politics, communications, and other professional fields.

### WMS 478, 479 Special Topics. Two and three sem hours

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.

### WMS 497, 498, 499 Independent Study in Women's Studies.

One, two, three sem

Advanced study on an individual basis in areas in which the program does not offer formal courses. These courses are normally restricted to juniors and seniors.

## WOMEN'S STUDIES

Coordinator, Daryl Hafter  
 (487-1177 or 487-0068)

Department of History and Philosophy

### Minor (Non-Teaching)

The Women's Studies Program is one of the innovative areas of academic scholarship designed to widen the perspective of the student concerning the changes in contemporary society. The interdisciplinary Women's Studies Minor will make available to all students, men and women, intellectual training which will add a new dimension to their academic program. The courses will provide a knowledge of women important to a variety of today's careers.

The minor in Women's Studies consists of a minimum of 20 semester hours to be distributed as follows:

	Semester Hours
Required introductory course:	
*WMS 200 Introduction to Women's Studies . . .	3
Required courses (at least three of the following):	9-12
*PSY 242 Psychology of Women . . . . .	3
*HIS 335 History of Women in Europe . . . . .	3
LIT 444 Women in Literature . . . . .	3
*SOC 444 Sociology of Sex Roles . . . . .	3
Electives . . . . .	8-11
*HIS 336 History of Women in the U.S. and Great Britain . . . . .	3
ECO 328 Economics of Women . . . . .	3
BED 205 Women in Business . . . . .	3
*FA 436 Women in Art . . . . .	3
PED 405 Women in Sports . . . . .	3
PLS 379 Special Topics: Women in Politics . . .	3
FLA 279 Special Topics: French Feminine Fiction . . . . .	3
SFD 402 Sexism and Education . . . . .	3
HED 479 Special Topics: Women's Health . . . .	3
WMS 478 Special Topics . . . . .	2
WMS 479 Special Topics . . . . .	3
WMS 497 Independent Study in Women's Studies . . . . .	1
WMS 498 Independent Study in Women's Studies . . . . .	2
WMS 499 Independent Study in Women's Studies . . . . .	3

\*May count on Basic Studies.

Course descriptions may be found in the appropriate departmental listings.

**COLLEGE OF BUSINESS**  
**COURSE DESCRIPTIONS AND**  
**PROGRAMS OF STUDY**

**DEAN: Joe Kent Kerby**  
**ASSOCIATE DEAN: Patricia Weber**

**DEPARTMENTS**

**Accounting and Finance**  
**Management**  
**Marketing**  
**Operations Research and Information Systems**

## BUSINESS CURRICULA

The College of Business provides professional curricula for students contemplating administrative careers in business, government agencies and public administration. Emphasis is placed on the application of tools, concepts and theory to the making of business decisions and solving of business problems, rather than on theory by itself or abstract ideas.

### OBJECTIVES

College of Business programs are designed to prepare students for effective participation in business and management. Narrow specialization is avoided by requiring that students be exposed not only to the full range of business disciplines, but to at least fifteen courses in the arts and sciences. With this preparation, students find many doors open to them in a wide range of business firms and other organizations that require managerial talent. Business programs at Eastern Michigan University are aimed primarily at preparing students for careers in the business world, and major emphasis is on the practical application of tools, theories and concepts to real world problems. Having to make actual application of tools, theories and concepts is excellent preparation for those who wish to seek advanced business degrees such as the MBA, DBA or PhD in a business discipline.

A second major objective of the College is to serve as an educational resource for business firms in Southeastern Michigan. Alliances with business firms are mutually beneficial to the firms, to students, to faculty, and to the College.

A third objective is to contribute to the body of knowledge and understanding of management and business enterprise through faculty engagement in research, writing and paper presentations.

### DEGREES OFFERED

The following degrees are offered through the College: Bachelor of Business Administration; Master of Business Administration; and the Master of Science in accountancy, in computer-based information systems, and in organizational behavior and development.

## EDUCATIONAL PROGRAMS

Educational programs leading to both the bachelor's and master's degrees give special emphasis to the behavioral and quantitative sciences approach in the development of analytical skills and problem solving techniques which can be applied to management problems. Instructional emphasis is given to various forms of communication, quantitative decision tools, development of analytical skills and problem-solving techniques, and to activities that provide practical experience and practice in applied research. Normally, forty to sixty percent of the course work in the undergraduate program should be devoted to courses taught within the college. Similarly, forty to sixty percent of course work must be completed in economics, psychology, sociology, mathematics and other related liberal arts areas.

Students majoring in Accounting, Finance, or Real Estate may enroll in cooperative education courses with a MKT, MGT, or ORI prefix with the supervision of a faculty member from their major, pending approval of cooperative education courses in those curriculum areas. Such students should contact the Associate Dean, College of Business, for assistance in registering.

## GRADUATE PROGRAMS

The College of Business offers graduate work leading to the master's degrees in business administration, accounting, computer-based information systems and organizational behavior and development. For descriptions of graduate courses and programs in the College of Business, please consult the Graduate Catalog.

### ACCREDITATION AND MEMBERSHIPS

Educational programs are accredited by the North Central Association of Colleges and Universities and the undergraduate and graduate programs by the American Assembly of Collegiate Schools of Business.

Accreditation by the above agencies is based on standards that include the professional qualifications and competence of the faculty, nature and scope of the academic program, content and breadth of the curriculum, adequacy of learning resources and physical facilities, and the financial support provided for carrying out the mission of the College.

### GENERAL REQUIREMENTS

Credit hours: a minimum of 124 semester hours must be successfully completed to qualify for the bachelor's degree. All candidates for graduation must have earned a cumulative grade point average of 2.00 ("C") on all course work. A "C" average must be earned in all courses completed at Eastern Michigan University.

A minimum of 50 semester hours must be completed in economics, psychology, sociology, mathematics and other related liberal arts areas.

The senior year's work (last 30 semester hours) must, with minor exceptions, be completed on the Ypsilanti campus, or at a coordinated degree-granting branch.

Courses numbered 300 and above may not be taken by business students who have earned fewer than 55 semester hours of credit and who have not successfully completed all of the following courses:

1. English Composition
2. Speech
3. Language Elective
4. MTH 118\* and MTH 119 (or MTH 120 and MTH 122)
5. ECO 201 and ECO 202
6. American Government
7. Philosophy or Religion  
(PHI 130 strongly recommended)
8. PSY 101 or 102
9. ACC 240 and 241
10. LAW 293
11. ORT 215
12. MGT 202
13. ORI 265

All course prerequisites will be strictly enforced. Students must complete graduation requirements as stated in a catalog not more than seven years prior to their final student checkout. (See requirements for graduation pages 30 through 35.)

No student majoring in a program outside 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 on a casual basis.

\*Must be taken in Freshman year.

## TRANSFER CREDIT FROM COMMUNITY AND JUNIOR COLLEGES

All college-parallel credit earned at accredited community and junior colleges will be recorded on the student's official record at Eastern Michigan University at the time the transfer is completed. All students must complete a minimum of sixty semester hours of undergraduate credit exclusive of community or junior college credit transferred.

Credit for courses taken at community or junior colleges at the 100 or 200 level, but which are offered at EMU at the 300 or 400 level, must be validated. This validation will normally be accomplished by successful completion of a written examination prepared and administered by the EMU department in which the course is offered. If the course is the first of a series, such as Intermediate Accounting, validation may be accomplished by successful completion of the next higher level course in the series. Arrangements to validate a course must be made in the first semester of residency at EMU and can be initiated by completing a form obtainable from the Office of Academic Records and paying a modest fee. A maximum of 12 semester hours of this credit by validation may be applied in meeting graduation requirements in any academic area or program.

Students planning to transfer should complete freshman and sophomore courses (100-200 level) required in the degree program to be pursued at Eastern Michigan University.

## PROGRAM AREAS OF CONCENTRATION

Students enrolling in the College of Business may plan a career-oriented program of studies which permits specialization in the area of concentration selected. Brief sketches of ten program areas leading to the bachelor's degree are presented. Details of program requirements are provided in the Programs of Study to be found following the course listings of each department.

### Accounting

This program prepares students for careers in public, industrial, governmental and tax accounting, as well as auditing. Students study a comprehensive set of measurement and reporting rules that accountants use to provide information needed to make business decisions. Accounting is a profession requiring exceptional communication ability and high ethical standards.

### Business Computer Systems

The Business Computer Systems program encompasses the analysis, design, implementation and evaluation of systems for processing business data and providing information required for the operation and management of business organizations. Students become familiar with automatic data processing and computer equipment, computer programming and software systems, systems analysis and design concepts, computer modeling and operations research, and computer-related quantitative methods for business decision making.

Students specializing in the Business Computer Systems program prepare for employment in business, industry and government as programmer analysts, systems analysts, and related management information systems areas.

### Economics

In cooperation with the Department of Economics, College of Arts and Sciences, students seeking the Bachelor of Business Administration degree can select economics as their major. Career concentrations are possible in such areas as business economics, economics of finance, labor economics, governmental economics, and comparative economic systems.

### Finance

Students electing the finance major prepare for careers in financial management and investment analysis.

Financial management deals with the evaluation of capital expenditures, projection of capital needs and the acquisition of funds.

Investment analysis includes the field of security analysis and portfolio management. Investment alternatives, investment markets, forecasting and profit-risk relationships are important areas of study.

### General Business

This program will be of special interest to those students who wish a broad, general business education rather than a specialized program in business administration. Students who plan to manage their own business, enter a large corporation which maintains its own training program, or who are uncertain of their career plans in business, may wish to select the general business area.

### Insurance

The insurance major is designed to prepare students for professional careers in insurance and risk management, pension programs, and government social insurance programs. Entry level positions for which students should be prepared include marketing representatives, insurance adjusters, safety directors, insurance agents and agency management, employee benefits supervisors, and manager of risk management departments.

Students may elect to specialize in the areas of life and health insurance, property and liability insurance, and risk management.

### Management

The Department of Management prepares students for management careers in business and non-business organizations. Educational programs develop an understanding of the roles and responsibilities of managers in the fields of organizational theory, human relationships, administrative communication and related behavioral areas.

Students specializing in this program area prepare for careers in administrative communication, personnel and industrial relations, business management in public agencies and small business management.

### Marketing

The marketing curriculum offers career-oriented programs directly and indirectly related to the distribution of goods and services in domestic and world markets. This program emphasizes knowledge and skills needed in advertising and sales promotion, sales and sales management, distribution management, retailing, marketing research and international business.

### Production Systems Analysis

The Production Systems Analysis program is designed to prepare students for initial employment and to advance to upper levels of management in areas related to production planning and scheduling, material procurement, inventory control, project scheduling, quality control and facilities planning. The program should enable graduates to work in various kinds and sizes of production systems as well as to pursue graduate study following graduation.

The program aims to be responsive to social, economic and technological developments and will reflect the application of evolving knowledge in both behavioral and quantitative sciences.



**Real Estate**

The real estate major is designed to prepare students for professional careers in real estate. Areas in which a graduate might employ the knowledge acquired include sales, brokerage, management, development, and leasing. These skills might be used at local, regional, national, and international levels with possible employment opportunities ranging from local real estate sales offices to real estate management and development positions with international corporations and/or financial institutions.

**BUSINESS ADMINISTRATION CURRICULUM**

**Bachelor of Business Administration Degree**

Associate Dean, **Patricia Weber**  
(487-4141)

Students electing to concentrate in any one of the ten program areas cited above must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on pages 32 through 34. This same section indicates how students may choose an alternate way of meeting up to 18 hours of the Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major and core requirements do specify both courses and the number of hours to be completed. In some cases, courses taken to meet Basic Studies requirements may also meet curriculum requirements, as in the case of Economics 201 and 202, Principles of Economics.

All 100 and 200-level courses, with the possible exceptions of Art, Music or Drama; History; the laboratory science course; and the two literature courses must be completed before enrollment in any 300-level course will be permitted.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

**Semester Hours**

Group I Language .....	8-9
One course in English Composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
Group II Science and Mathematics .....	17-18
One laboratory course from the biology, chemistry, geography or physics departments .....	4-5
PSY 101 General Psychology .....	3
ORI 265 Business Statistics I .....	3
Mathematics (Select Option I or II) .....	6

\*Students planning to complete the mathematics requirement at another four-year college or university, or at a two-year community college must select courses which include linear algebra, differentiation and integration.

Students must complete MTH 118 or MTH 122 and MTH 119 or MTH 120 (or approved substitutes). Generally, Option I or Option II is selected:

- \*\*Option I
- MTH 118 Mathematical Analysis for Social Sciences I .....
- MTH 119 Mathematical Analysis for Social Science II .....
- \*\*\*Option II
- MTH 120 Calculus I .....
- MTH 122 Elementary Linear Algebra .....

- Group III Social Science .....
- One course in history .....
- PLS 112 American Government or 202 State and Local Government .....
- ECO 201, 202 Principles of Economics .....
- Humanities .....
- Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.
- One course in philosophy or religion.
- One course in art, music or dramatic arts.

- Group VI Practical Arts .....
- Business Administration Core (All 200 and 300 level core courses should be completed by end of junior year) .....
- ORI 215 Computers in Business .....
- ACC 240 Principles of Accounting .....
- ACC 241 Principles of Accounting .....
- MGT 202 Business Communication .....
- LAW 293 Legal Environment of Business .....
- FIN 350 Principles of Finance .....
- MKT 360 Principles of Marketing .....
- MGT 386 Organization Theory and Development .....
- ORI 374 Production/Operations Management .....
- MGT 490 Business Policy .....

- Academic Major (select one) .....
- Accounting .....
- Business Computer Systems .....
- Economics .....
- Finance .....
- General Business .....
- Insurance .....
- Management .....
- Marketing .....
- Production Systems Analysis .....
- Real Estate .....
- Group VII Physical Education and Health .....
- Physical education activity courses .....

Note: Two semester hours of military science may apply toward this requirement.

Free electives .....

Total .....

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed.

Students planning to continue study in some graduate school of business are urged to complete the following courses as electives:

\*\*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. An alternative advanced mathematics sequence may be required for students who have completed three or more years of high school mathematics with high quality achievement.

## DEPARTMENTS

### ACCOUNTING AND FINANCE

Acting Department Head: Loren W. Anderson

Professors: E. A. Devine, Walker E. Fesmire

Associate Professors: George S. Clark, Ramesh C. Garg,  
Tribhowan N. Jain, John W. Keros, Susan W. Long, Chandra  
P. Pathak

Assistant Professors: Loren W. Anderson, Ronald E. Hutch-  
ins, Geraldine M. Kruse, S. L. Srinivasulu, Larry Van-  
Syckle, C. Wayne Weeks

Instructors: Rolland K. Cooper, Greg R. Dunning, Everett M.  
Hawley, Jamie P. Keillor, Patricia A. Libby, Maurice G.  
Marr, Charles E. Stahl

#### Accounting Courses

New courses are identified with a bullet •.

**ACC 240 Principles of Accounting.** Three sem hours  
Thorough study of the accounting cycle. The course centers on  
the way accounting serves to develop useful information about  
economic organizations. Problems of valuation and statement  
presentation of selected assets and liabilities are considered.  
Problems of accounting for ownership equity.

**ACC 241 Principles of Accounting.** Three sem hours  
Expense analysis and cost accounting; use of accounting data  
to achieve managerial goals; influence of taxes on business  
decisions is introduced. Special attention is given to the prob-  
lems that arise in interpreting accounting data.  
*Prereq:* ACC 240 Principles of Accounting.

**ACC 244 Personal Tax Accounting.** Two sem hours  
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 Accounting 244 and Accounting 344.) (Business Educa-  
tion majors may substitute this course for 344 Tax Accounting  
with permission of their department head.)  
*Prereq:* ACC 240 Principles of Accounting or junior standing.

**ACC 246 Accounting for Public Administrators.**  
Three sem hours  
Surveys the use of accounting to manage a public organiza-  
tion. Covers basic accounting principles, program budgeting  
and the construction of internal control systems.

**ACC 340 Intermediate Accounting.** Three sem hours  
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 Principles of Accounting.

**ACC 341 Intermediate Accounting.** Three sem hours  
Covers capital stock, rights, options and retained earnings;  
long term liabilities; income tax allocation; long term invest-  
ments; prior period adjustments; funds flow; price level ac-  
counting; consignments; installment sales.  
*Prereq:* ACC 340 Intermediate Accounting.

**ACC 342 Managerial Cost Accounting.** Three sem hours  
Accounting information for use in planning objectives and in  
controlling operations. A framework for measuring manage-  
rial performance is developed through an analytic treatment of  
cost behavior under dynamic conditions by employing such  
devices as cost-volume-profit relationships, flexible budget-  
ing and standards (variances).  
*Prereq:* ACC 241 Principles of Accounting.

ECO 301 Intermediate Macroeconomic Analysis  
ECO 302 Intermediate Microeconomic Analysis  
ORI 465 Business Statistics II

#### Typical Business Administration Program for Freshman and Sophomore Years

All students must complete 124 semester hours to receive  
the Bachelor of Business Administration degree. To meet this  
requirement, students normally register for 15-16 credit hours  
each semester. Students preferring to start with lighter class  
loads can make up credits during subsequent semesters and by  
attending spring and summer terms.

Students majoring in the program areas listed above are  
required to complete the basic studies curriculum outline  
below for freshmen and sophomores. Areas of concentration to  
be completed during the junior and senior years are presented  
on the following pages by academic majors.

Students completing all requirements for the Bachelor of  
Business Administration degree will have met the major and  
minor requirements for graduation. No outside minor is re-  
quired.

#### Freshman Year

English, Speech and Literature  
(Foreign Language optional)  
Biology, Chemistry, Physics or Geography  
Government, History  
Mathematics  
Psychology  
Physical Education or Military Science (ROTC)

#### Sophomore Year

Legal Environment of Business, Economics  
Business Communications  
Logic, Philosophy or Comparative Religions and Art  
Accounting, Computers in Business, Business Statistics  
Physical Education or Military Science

**ACC 344 Tax Accounting.** Three sem hours  
Covers 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 340 Intermediate Accounting or FIN 358 Analysis of Financial Statements.

**ACC 346 Governmental Accounting.** Three sem hours  
Covers accounting philosophy for non-profit organizations; principles of fund accounting; the budget process including program budgeting; institutional (college, hospital, welfare agency) accounting; internal control; and data processing.  
Prereq: ACC 241 Principles of Accounting.

**ACC 440 Advanced Accounting.** Three sem hours  
Covers partnership organization, change, and liquidation; consolidation accounting; fiduciary accounting; introduction to governmental accounting.  
Prereq: ACC 341 Intermediate Accounting.

**ACC 442 Advanced Cost Accounting.** Three sem hours  
Covers some 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; and applications of mathematics to cost accounting problems.  
Prereq: ACC 342 Managerial Cost Accounting.

**ACC 444 Advanced Tax Accounting.** Three sem hours  
Covers tax law applicable to partnerships and corporations; operation distributions, reorganization and liquidation.  
Prereq: ACC 344 Tax Accounting.

**ACC 445 Auditing.** Three sem hours  
Covers audit standards, professional responsibility, ethics, internal control evaluation, statistical sampling and audit of EDP systems.  
Prereq: 18 semester hours of accounting and senior standing.

**ACC 446 Financial Information Systems.** Three sem hours  
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. Application of data processing in the accounting system.  
Prereq: ORI 215 Computers in Business and ACC 342 Managerial Cost Accounting or permission of the department.

**ACC 447 Contemporary C.P.A. Problems.** Three sem hours  
Analysis of current accounting problems faced by the C.P.A. profession. Covers audit, legal liability, ethics, theory and practice.  
Prereq: ACC 440 Advanced Accounting.

**ACC 479 Special Topics in Accounting.** Three sem hours (formerly 348 Practicum in Accounting)  
Studies specialized in accounting topics in relation to changes in the practice of accounting and its regulation by government agencies. New teaching methods are encouraged.  
Prereq: ACC 341 Intermediate Accounting.

**ACC 489 Business Internship.** Three sem hours  
Directed full-time work experience in the accounting phase of business organization. This course may be repeated once for additional credit. Graded credit/no credit.  
Prereq: Permission of the department. To be used as a free elective only, does not apply on a major or minor.

**ACC 499 Directed Studies.** Three sem hours  
Directed study of a problem or group of problems in accounting and finance not otherwise treated in departmental courses.  
Prereq: Permission of the department.

## Finance Courses

New courses are identified with a bullet •.

**FIN 350 Principles of Finance.** Three sem hours  
Financing and organizing business enterprises, interpreting financial statements, sources and uses of funds, financing and sale of securities, income disbursements and dividend policies.  
Prereq: ORI 265 Business Statistics I.

**FIN 354 Investments.** Three sem hours  
Development and placement of investments in business and their relationship to economic, legal and social institutions. Topics include bonds, stocks, security markets, security market operation, new security issues, investment policies, and U.S. government, state and municipal obligations.  
Prereq: FIN 350 Principles of Finance.

**FIN 357 Financial Markets.** Three sem hours  
The operation and behavior of capital markets and financial intermediaries as sources of investment capital to the business firm. Study of liability management and investment portfolio behavior of financial market participants. Analysis of 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 Principles of Finance.

**FIN 358 Analysis of Financial Statements.** Three sem hours  
Analysis and interpretation of the financial statements and reports of various types of business and industries. Effect of price-level changes is emphasized.  
Prereq: FIN 350 Principles of Finance.

**FIN 359 Intermediate Financial Theory.** Three sem hours  
The course of study focuses on the theory of financial management, internal financial management and control, and institutional relationships.  
Prereq: FIN 350 Principles of Finance.

**FIN 450 Problems in Financial Management.** Three sem hours  
A study and discussion through the case method of contemporary developments in financial theory and practical applications. Students engage in research in the area of their choice.  
Prereq: FIN 359 Intermediate Financial Theory.

**FIN 451 Portfolio Management.** Three sem hours  
An advanced course for professional investment managers covering economic policy and forecasting, security valuation, technical analysis, and portfolio methods and procedures.  
Prereq: FIN 354 Investments or equivalent.

**FIN 453 Commercial Banking.** Three sem hours  
Practices, policies and problems of commercial bank management and operation, capital adequacy, loan and investment policy, liquidity, and profit maximization.  
Prereq: FIN 350 Principles of Finance.

## Insurance Courses

New courses are identified with a bullet •.

**INS 258 Personal Insurance Planning.** Three sem hours  
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 programs: automobile, home, life, health and retirement.  
Prereq: Sophomore standing.

**INS 351 Introduction to Risk and Insurance.** Three sem hours  
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 Principles of Accounting.

**INS 457 Property and Liability Insurance.** Three sem hours  
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 Introduction to Risk and Insurance.

**INS 458 Life and Health Insurance.** Three sem hours  
A study of the purposes, uses and role of life insurance in our society. Major topics covered are nature and uses, legal aspects, types of policies, contract provisions, rate-making, company organization and operation, underwriting practices, and regulation.  
Prereq: INS 351 Introduction to Risk and Insurance.

**INS 479 Special Topics in Insurance.** Three sem hours (formerly 459 Seminar in Risk Management)  
A study of risks, including the identification, measurement, analysis and handling of business risks, from the viewpoint of a risk manager. Cases are used extensively to provide practical applications of risk management principles and practices.  
Prereq: INS 457 Property and Liability Insurance and INS 458 Life and Health Insurance.

## Real Estate Courses

New courses are identified with a bullet •.

**RES 210 Real Estate Principles and Practices.** Three sem hours  
Survey of real estate law, finance, appraising, brokerage, and investments, including ownership interests, contracts, and open housing laws.

**RES 310 Real Estate Finance.** Three sem hours (formerly FIN 454)  
Methods of financing various types of real estate, including sources of funds, analysis of lenders' risks, types of loans, government influences and participation, and the secondary market.  
Prereq: RES 210 Real Estate Principles and Practices and FIN 350 Principles of Finance.

**RES 320 Real Estate Appraisal.** Three sem hours  
Fundamentals of real estate appraisal including factors that affect values. Evaluation of land, improvements, and special classes of property. Appraisal practice, depreciation, obsolescence, and the mathematics of appraising.  
Prereq: RES 210 Real Estate Principles and Practices.

**RES 340 Real Estate Investments.** Three sem hours  
This course will identify quantitative and qualitative standards in the evaluation of the feasibility of real estate investments. This course will link community and investor interest together with site productivity, and will consider the distinguishing characteristics of alternative real estate investments as they relate to effective land utilization.  
Prereq: RES 320 Real Estate Appraisal and FIN 350 Principles of Finance.

**RES 420 Real Estate Brokerage.** Three sem hours (formerly 220)  
Contract form selling techniques, office location and design, civic leadership, laws of agency, listing dialogue, effective advertising, overcoming buyers and sellers' objections, closing statements.  
Prereq: RES 210 Real Estate Principles and Practices.

**RES 430 Real Estate Property Management.** Three sem hours (formerly 330 Real Estate Management)  
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 Real Estate Principles and Practices.

**RES 450 Property Development and Management.** Three sem hours  
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 Real Estate Finance.

## ACCOUNTING

### Accounting and Finance Department

Adviser Chairman, Loren W. Anderson  
(487-3320)

Accounting majors are prepared for professional careers in public accounting, industrial accounting and governmental accounting. The work of an accountant includes financial statement preparation, business budgeting, tax advice and auditing of financial records. Because of the need for good communication in business, students majoring in accounting are encouraged to elect courses in English composition and speech beyond the basic requirements. Students are also advised to elect ORI 465 Advanced Business Statistics. Some career choices available to accounting majors:

#### Public Accounting

The primary service of a Certified Public Accountant is in the audit field. CPAs are independent professionals who give their opinions on the fairness of financial statements prepared for investors. Their opinions state whether those statements present fairly the information contained therein. In addition, CPAs render tax service and management advisory services to their clients.

**Industrial Accounting**

Careers in industrial accounting are extremely varied. Job titles include budget analyst, cost accountant and internal auditor. The basic function of an individual in industrial accounting is to accumulate and report financial data which help management plan and control operations.

**Institutional or Governmental Accounting**

Non-profit organizations and local, state and federal governmental agencies employ accountants in capacities similar to those in industrial accounting. These entities need financial information about the effectiveness of their operations, just as industrial concerns do. Accountants are also employed by governmental agencies to review tax returns, analyze cost reports on projects funded by the government, and assist various regulatory commissions as they regulate private industry and individual businesses.

Accounting majors who wish to become Certified Public Accountants (public accounting) or obtain the Certificate in Management Accounting (industrial or governmental accounting) qualify, upon graduation, to sit for the uniform national examinations which test competence to enter these professional organizations.

**Internship**

Through the internship program, students with good academic records have an opportunity to work in public accounting or industry. These internships provide education, salary and exposure to a new world of professional experience.

**Major in Accounting**

(To be completed in conjunction with the Bachelor of Business Administration degree) page 176.

	<b>Semester Hours</b>
Total specialized hours required	24
Required	15
ACC 340 Intermediate Accounting	3
ACC 341 Intermediate Accounting	3
ACC 342 Managerial Cost Accounting	3
ACC 344 Tax Accounting	3
ACC 445 Auditing	3
Restricted Electives	9
LAW 393 Law of Business Enterprises	3
ACC 346 Governmental Accounting	3
FIN 358 Analysis of Financial Statements	3
ACC 440 Advanced Accounting	3
ACC 442 Advanced Cost Accounting	3
ACC 444 Advanced Tax Accounting	3
ACC 446 Financial Information Systems	3
ACC 447 Contemporary C.P.A. Problems	3
ACC 479 Special Topics in Accounting	3
ACC 499 Directed Studies	3

**Minor in Accounting** (a non-teaching minor for non-business majors)

Students who are non-business majors may elect to minor in accounting. These students must complete the following program:

	<b>Semester Hours</b>
Total specialized hours required	21
Required	15
ACC 240 Principles of Accounting	3
ACC 241 Principles of Accounting	3
LAW 293 Legal Environment of Business	3
ACC 340 Intermediate Accounting	3
ACC 344 Tax Accounting	3

Restricted Electives	6
ORI 215 Computers in Business	3
ACC 341 Intermediate Accounting	3
ACC 342 Managerial Cost Accounting	3
ACC 346 Governmental Accounting	3
ACC 442 Advanced Cost Accounting	3
ACC 444 Advanced Tax Accounting	3
ACC 446 Financial Information Systems	3

**FINANCE**

Adviser Chairman, **Loren W. Anderson**

(487-3320)

Accounting and Finance Department

A student majoring in finance may choose from a variety of concentrations and career choices as described below. Students interested in a professional finance career can elect additional hours in accounting and other areas, depending on the concentration selected.

**Major in Finance**

(To be completed in conjunction with the Bachelor of Business Administration degree) page 176.

**Financial Management Concentration**

Students desiring to develop a broad background in organizational management from a financial perspective may choose this concentration. Financial Management involves the planning and management of assets and the acquisition of funds for investment by corporations, non-profit organizations, governmental units and financial institutions. Course work in this area emphasizes financial decision-making in the key operational areas of the firm.

	<b>Semester Hours</b>
Required courses	12
FIN 357 Financial Markets	3
FIN 358 Analysis of Financial Statements	3
FIN 359 Intermediate Financial Theory	3
FIN 450 Problems in Financial Management	3
Restricted Electives	12
RES 310 Real Estate Finance	3
ACC 342 Managerial Cost Accounting	3
INS 351 Introduction to Risk & Insurance	3
FIN 354 Investments	3
ACC 444 Advanced Tax Accounting	3
ECO 445 Economic Fluctuation and Forecasting	3
FIN 451 Portfolio Management	3
FIN 453 Commercial Banking	3
ORI 465 Business Statistics II	3

**Investment Analysis Concentration**

The investment concentration is designed for students with interests in analyzing and managing stocks, bonds and other investments. The students study available investment alternatives, behavior and operation of investment markets, and the determination and forecasting of investment value. These skills can be applied to careers such as stock broker, investment banker, investment trust manager, financial analyst, and portfolio manager.

	<b>Semester Hours</b>
Required courses	12
FIN 354 Investments	3
FIN 358 Analysis of Financial Statements	3
FIN 359 Intermediate Financial Theory	3
FIN 451 Portfolio Management	3

Restricted Electives .....	12
RES 310 Real Estate Finance .....	3
ACC 344 Tax Accounting .....	3
INS 351 Introduction to Risk & Insurance .....	3
FIN 357 Financial Markets .....	3
FIN 450 Problems in Financial Management ...	3
FIN 453 Commercial Banking .....	3
ORI 465 Business Statistics II .....	3

**Minor in Finance** (A non-teaching minor for non-business majors)

Non-business majors may elect to minor in finance. Students must complete 21 semester hours of credit per the following program:

	<b>Semester Hours</b>
Finance minor .....	21
Required .....	12
ACC 240 Principles of Accounting .....	3
ACC 241 Principles of Accounting .....	3
FIN 350 Principles of Finance .....	3
FIN 359 Intermediate Financial Theory .....	3
Restricted Electives .....	9
FIN 354 Investments .....	3
FIN 358 Analysis of Financial Statements .....	3
FIN 450 Problems in Financial Management ...	3
FIN 451 Portfolio Management .....	3
FIN 453 Commercial Banking .....	3

## INSURANCE

Adviser Chairman, **Loren W. Anderson**  
(487-3320)  
Accounting and Finance Department

### Major in Insurance

(To be completed in conjunction with the Bachelor of Business Administration degree).

The study of insurance includes the identification and management of risk in the areas of property, liability, life and health. Employment opportunities include (1) underwriting, adjusting and marketing careers with insurance companies and (2) pension planning and risk management positions with business firms and public institutions.

	<b>Semester Hours</b>
Total specialized hours required .....	24
Required courses .....	12
INS 351 Introduction to Risk & Insurance .....	3
INS 457 Property and Liability Insurance .....	3
INS 458 Life and Health Insurance .....	3
INS 479 Special Topics in Insurance .....	3
Restricted electives .....	12
ACC 342 Managerial Cost Accounting .....	3
ACC 344 Tax Accounting .....	3
RES 210 Real Estate Principles and Practices .....	3
FIN 354 Investments .....	3
FIN 357 Financial Markets .....	3
FIN 359 Intermediate Financial Theory .....	3
MGT 386 Organization Theory and Development .....	3
ORI 418 Operations Research .....	3
MKT 461 Sales Management .....	3

## REAL ESTATE

Adviser Chairman, **Loren W. Anderson**  
(487-3320)

### Major in Real Estate

(To be completed in conjunction with the Bachelor of Business Administration degree).

The real estate major will serve the career goals of students interested in the financing, sale, appraisal and development of commercial and residential real property. Course work will emphasize land use, taxation and property management. Career choices associated with real estate include direct involvement with development and management of real estate projects and the evaluation of such projects from the point of view of a potential investor or lender.

	<b>Semester Hours</b>
Total specialized hours required .....	24
Real Estate Core courses (required) .....	12
RES 210 Real Estate Principles and Practices .....	3
RES 310 Real Estate Finance .....	3
RES 320 Real Estate Appraisal .....	3
RES 340 Real Estate Investments .....	3
Restricted Real Estate Electives (Choose Two) .....	6
RES 420 Real Estate Brokerage .....	3
RES 430 Real Estate Property Management .....	3
RES 450 Property Development and Management .....	3
LAW 455 Real Estate Law .....	3
Restricted Cognate Electives (Choose Two) .....	6
MKT 261 Contemporary Selling .....	3
GEO 315 Land Use Planning .....	3
ORI 219 Programming of Business Information Systems .....	3
ACC 342 Managerial Cost Accounting .....	3
ACC 344 Tax Accounting .....	3
INS 351 Introduction to Risk and Insurance .....	3
MGT 481 Small Business Management .....	3

## MANAGEMENT

**Department Head:** Floyd A Patrick

**Professors:** Leland Brown, James H. Conley, Floyd A. Patrick  
**Associate Professors:** Robert P. Crowner, Jagdish Danak,  
Howard Harlow, Charles F. Hoitash

**Assistant Professors:** Nancy Barkley, Nicholas Beltsos, P. Nick Blanchard, Richaard Camp, Douglas D. Cantrell, Pradeep Chowdhry, Gaston DesHarnais, Gregory Huszczo, Jean McEnery, Jack Nightingale, Lorraine Hendrickson, Mary E. Vielhaber

**Instructors:** Amelia Chan, Thomas Powers

The Management Department offers course work designed to prepare candidates for leadership roles in business and non-business organizations in the urban industrial and research setting by providing educational experiences in the following basic areas of management:

Understanding and application of the behavioral sciences as related to planning and communication, organizational design and development, action implementation and performance measurement which will maximize human output and self-fulfillment concurrently.

Understanding of the roles and responsibilities of managers for assuming social and environmental obligations and applying appropriate techniques of conservation of energy and natural resources.

The Management Department administers the management major (see page 184) in which a person may concentrate in fields of administrative communication, industrial relations-personnel, public and non-public organizations and small business enterprise. The Department also administers the general business major (see page 183) for the student who does not wish to specialize in one functional area of business. In either major, programs can be tailored for general management and for executive development of the person currently employed. There are also minors available in each area.

### Management Courses

New courses are identified with a bullet •.

**MGT 202 Business Communications.** Three sem hours (formerly MGT 302)

Study of principles, elements and practices underlying administrative communication. Particular attention is given to the thinking and creative processes involved in problem solving. Emphasis on the psychology, planning and transmission of business information.

*Prereq:* Sophomore standing or permission of the department.

**MGT 281 Basic Supervision.** Three sem hours

A study of basic supervision and practical techniques of leadership for those aspiring to management positions or recently appointed to first-line management. (Not open to students with credit in MGT 382 Principles of Management; does not apply toward management major or minor.)

**MGT 382 Introduction to Management.** Three sem hours

An analysis of the basic managerial functions and the principles which guide their proper execution at the administrative, staff and operational levels. Designed to aid students in developing a philosophy of management and in acquiring administrative techniques. The course emphasizes production concepts as illustrative of management practices generally applicable to all managerial or administrative activities.

**MGT 384 Personnel Administration.** Three sem hours  
Industrial relations functions in business organization. Recruitment, selection, placement, training, motivation and appraisal of personnel; emphasizing the scientific approach to the solution of practical problems of industrial manpower utilization.

**MGT 386 Organization Theory and Development.**

Three sem hours  
The study of behavioral problems in administration. Individual, group, intergroup and organizational behavior under dynamic environment conditions. Theory and case analysis.  
*Prereq:* MGT 382 Introduction to Management.

• **MGT 387 Cooperative Education in Management.**

Three sem hours  
Four months of full-time employment at a business or public organization in a management position chosen for imparting a practical education experience in management. Use on a management major or minor not permitted. Offered on a credit/no credit basis.

*Prereq:* Completion of 3 hours in management. Admittance by application only.

**MGT 402 Business Report Writing.** Three sem hours

Study of principles and practices of business report writing required of men and women in their professional careers in business, industry, education and government. Emphasis is on concepts, their illustrations and applications. Attention given to the creative and functional aspects in understanding the problem, gathering and organizing data and presenting reports for management, employees and the public.

*Prereq:* MGT 302 Business Communication.

**MGT 480 Management Responsibility in Society.**

Three sem hours  
Deals with social, legal and moral pressures of external and community groups on business operations, including 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.** Three sem hours

A study of the major concepts and fundamental principles involved in the management of a small business enterprise. Emphasis on the role of the small firm in the national economy, and the managerial considerations and problems confronting the entrepreneur in establishing such a venture.

*Prereq:* MGT 382 Introduction to Management, FIN 350 Principles of Finance and MKT 360 Principles of Marketing.

**MGT 482 Wage and Salary Administration.**

Three sem hours  
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 Personnel Administration and MGT 386 Organization Theory and Development or permission of the department.

**MGT 484 Management-Union Relations.** Three sem hours

Management strategy and techniques in conducting effective management-union relationships and negotiations and contract administration for both industrial and non-industrial organizations.

*Prereq:* MGT 384 Personnel Administration and MGT 386 Organization Theory and Development or permission of the department.

**MGT 485 The Training Function in Organizations.** **Three sem hours**  
 Determination of training needs; development of training objectives; selection and development of resources for appropriate training experiences; and design implementation of means for training program evaluation.  
 Prereq: MGT 384 Personnel Administration or permission of the department.

**MGT 486 Strategies for Organizational Development.** **Three sem hours**  
 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 Organization Theory and Development or permission of the department head.

**MGT 487 Cooperative Education in Management.** **Three sem hours**  
 Four months of full-time employment at a business or public organization in a management position chosen for imparting a practical education experience in management. Use on a major or minor not permitted. Offered on a credit/no credit basis.  
 Prereq: Completion of 3 hours in management and MGT 387. Admittance by application only.

**MGT 488 Small Business Management Field Study.** **Three sem hours**  
 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. Graded credit/no credit.  
 Prereq: Permission of the department head.

**MGT 489 Management Internship.** **Three sem hours** (formerly 401)  
 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 these credits may be counted for free elective credits only (not as part of the 50-hour business major).  
 Prereq: Permission of the department head. Graded Credit/no Credit.

**MGT 490 Business Policy.** **Three sem hours**  
 Integration and analytical application of fundamental areas of business to case problems. Emphasis on policy issues in the identification and resolution of problem situations.  
 Prereq: Senior standing in business administration or permission of the department (senior standing implies completion of the College of Business core).

**MGT 495 Comparative Management Systems.** **Three sem hours** (formerly 489)  
 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 Organization Theory and Development and senior standing or permission of the department.

**MGT 496 Current Issues in Personnel.** **Three sem hours** (formerly 487)  
 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 Personnel Administration or permission of the department head.

**MGT 497, 498, 499 Independent Study.** **One, two, three sem hours**  
 Directed study of a problem or group of problems in management not otherwise treated in departmental courses.  
 Prereq: Senior status and permission of the department head.

**GENERAL BUSINESS**

Adviser Chairman, **Floyd Patrick**  
 (487-3240)

Management Department

**General Business Major** (24 semester hours)  
 (To be completed in conjunction with the Bachelor of Business Administration degree). See page 176.

	<b>Semester Hours</b>
Required .....	9
INS 351 Introduction to Risk and Insurance ....	3
MKT 368 Marketing Strategy .....	3
MGT 386 Organization Theory and Development	3
Restricted Electives .....	15
(Elect courses, approved by the academic adviser, from at least three of the following areas. A minimum of six hours must be at the 400 level.)	
Accounting and Finance	
Management	
Marketing	
Operations Research and Information Systems	

**General Business Minor** (20 semester hours)  
 (a non-teaching minor for non-business majors)

	<b>Semester Hours</b>
Required Courses .....	9
ACC 240 Principles of Accounting .....	3
ACC 241 Principles of Accounting .....	3
LAW 293 Legal Environment of Business .....	3
Electives from the following .....	12
ORI 215 Computers in Business .....	3
MGT 202 Business Communication .....	3
LAW 393 Law of Business Enterprise .....	3
ORI 219 COBOL Programming .....	3
FIN 350 Principles of Finance .....	3
INS 351 Introduction to Risk and Insurance .....	3
FIN 354 Investments .....	3
MKT 360 Principles of Marketing .....	3
MGT 382 Introduction to Management .....	3
MGT 402 Business Report Writing .....	3





## MANAGEMENT

Adviser Chairman, **Floyd Patrick**  
(487-3240)

The management major and minor are administered by the Management Department, with career concentrations possible in the following areas:

### General Management

For those students who do not wish to specialize in a particular academic area, the general management concentration provides a broad background in business administration that will equip them for a variety of positions in business and industry. In addition to the basic courses in business administration required of all business majors, each student selects representative courses in accounting, finance, management, marketing, and operations research and information systems which will contribute to his or her educational and vocational objectives.

### Industrial Relations - Personnel

This area focuses on the utilization of human resources in the most productive manner in business organizations with compatible goals of individual self-fulfillment and profits. This concentration equips students for line supervisory and staff personnel assignments through the development of knowledge and skills in organization theory and development; employee selection, training and performance review; wage and salary administration; and management-labor relations.

### Public and Non-Public Organizations

Emphasis is placed on the necessity of practicing management techniques effectively in organizations with social or governmental objectives rather than monetary profits. Students in these areas are equipped to perform as project administrators, organizational executives or governmental officials.

### Small Business Enterprise

Recognition is given to the all-inclusive needs and problems of the small business manager who must operate in a complex environment. Students are offered a broad management background and the specific techniques required to develop and maintain entrepreneurship. Accent is placed on the growing requirements for policy, strategy and social responsibility.

**Management Major (24 semester hours)**  
(To be completed in conjunction with the Bachelor of Business Administration degree). See page 176.

	Semester Hours
Required .....	9
MGT 384 Personnel Administration .....	3
MGT 386 Organizational Theory and Development .....	3
MGT 480 Management Responsibility in Society .....	3
Restricted Electives .....	15
Courses will come from the following list.	
Students with special occupational objectives may elect a maximum of 6 semester hours from courses offered in other departments within the college. Course substitutions must be approved in writing in advance by the department head.	
MGT 402 Business Report Writing .....	3
MGT 481 Small Business Management .....	3
MGT 482 Wage and Salary Administration .....	3
MGT 484 Management - Union Relations .....	3
MGT 485 Training Function in Organizations ..	3
MGT 486 Strategies for Organizational Development .....	3
MGT 495 Comparative Management Systems ...	3
MGT 496 Current Issues in Personnel .....	3
MGT 497, 498, 499 Independent Study .....	1,2,3

### Management Minor(Non-teaching)

	Semester Hours
(for non-business majors) .....	21
Required .....	9
ACC 240 Principles of Accounting .....	3
MKT 360 Principles of Marketing .....	3
MGT 382 Introduction to Management .....	3
Electives .....	12
ORI 215 Computers in Business .....	3
MGT 202 Business Communications .....	3
MGT 384 Personnel Administration .....	3
MGT 386 Organizational Theory and Development ..	3
ORI 390 Management Systems .....	3
ORI 374 Introduction to Production Management ..	3
MGT 481 Small Business Management .....	3
MGT 402 Business Report Writing .....	3
MGT 480 Management Responsibility in Society ..	3
MGT 482 Wage and Salary Administration .....	3
MGT 484 Management-Union Relations .....	3
MGT 485 Training Function in Organizations ..	3
MGT 486 Strategies for Organizational Development ..	3
MGT 496 Current Issues in Personnel .....	3
MGT 495 Comparative Management Systems .....	3

# MARKETING

Department Head: Robert J. Williams

Professors: Joseph L. Braden, Robert I. Hislop, Thomas M. Johnson, Joe Kent Kerby, Colin F. Neuhaus, A. Edward Spitz

Associate Professors: Albert W. Belskus, Raymond J. Drake, Hugh B. McSurely, Roger A. Peterson, Patricia B. Weber

Assistant Professors: R. Rodman Ludlow, Robert W. Morgan, Daryl Nengendank, Mohammad H. Sabertehrani, Gary M. Victor

Adjunct Professor: Kenneth Goodenday

Instructor: James Henderson

The department's primary concern is developing men and women for professional marketing positions. The Department of Marketing offers courses covering a wide range of marketing topics.

The required marketing courses emphasize such topics as the marketing concept, the marketing mix, consumer behavior and marketing strategy. The department presently offers a marketing major (and a minor) with career concentrations in the following areas: Advertising and Sales Promotion, Distribution Management, International Business, Marketing Research, Retailing and Sales and Sales Management (see page 186).

## Marketing Courses

Now courses are identified with a bullet •.

**MKT 261 Contemporary Selling.** Three sem hours  
The basic principles of personal selling applicable to any product and customer situation. Emphasis is on professional attitudes and performance.

**MKT 360 Principles of Marketing.** Three sem hours  
Marketing as a basic function in the firm and in the economy. Emphasis is placed on the relationship between marketing activities and the consumer. Includes both functional and institutional aspects of marketing.

**MKT 363 Retailing.** Three sem hours  
Principles of retail store management. Attention is given to store location, layout, personnel, organization, buying, inventory, sales promotion, customer services and operating expenses. Cases and outside speakers.  
Prereq: MKT 360 Principles of Marketing.

**MKT 364 Logistics Systems.** Three sem hours  
Concepts and materials related to the design and use of systems for the movement of goods. Topics will include movement of raw materials, facility use and location, customer service and channel choice. An integrated approach incorporating decision theory and systems theory will be adopted in the course.  
Prereq: MKT 360 Principles of Marketing.

**MKT 365 Buyer Behavior.** Three sem hours  
Concepts and research related to consumer and industrial buyer behavior. Attention given to sociological and psychological aspects of consumer and industrial buyer behavior, product adoption and diffusion, fashion and fad theory, household decision-making, industrial buying decision-making and other behavioral models.  
Prereq: MKT 360 Principles of Marketing and PSY 101 General Psychology.

**MKT 368 Marketing Strategy.** Three sem hours  
Advanced policies and practices in marketing. Emphasis is on case analysis of marketing problems pertinent to product, price, promotion and channels of distribution policies. Analysis and decision oriented.  
Prereq: MKT 360 Principles of Marketing.

**MKT 369 Advertising.** Three sem hours  
Advertising is approached from the management point of view. Topics considered include the role of advertising in the marketing mix; advertising and the process of communication; influence of buyer behavior on the character of promotional efforts; determining basic promotional strategy; choice of appropriate methods to achieve desired objectives; planning creative strategy; coordinating and integrating program elements; effective execution of promotional programs measuring the results of promotional efforts.  
Prereq: MKT 360 Principles of Marketing.

**MKT 374 Industrial Marketing and Purchasing.** Three sem hours  
Marketing problems of manufacturers of industrial goods — such as machinery and equipment, raw and semi-fabricated materials, industrial supplies and component parts. The course emphasizes market planning, relationship between purchasing and marketing, industrial buyer behavior, pricing and negotiation and industrial procurement policies. Case problems and outside speakers used.  
Prereq: MKT 360 Principles of Marketing.

• **MKT 387 Cooperative Education in Marketing.** Three sem hours  
Four months of full-time employment at a business or public organization in a marketing position. Elective credit only. Graded credit/no credit.  
Prereq: Three hours of Marketing.

**MKT 460 International Marketing.** Three sem hours  
Investigation of international marketing and its role in the multinational corporation. Subjects included are appraising international market opportunities; international product, price, promotion, and distribution policies; and international marketing environments.  
Prereq: MKT 360 Principles of Marketing.

**MKT 461 Sales Management.** Three sem hours  
Planning, organizing, directing and controlling the sales force. Includes recruiting, selecting, training, evaluating, compensating and supervising.  
Prereq: MKT 261 Contemporary Selling and MKT 360 Principles of Marketing.

**MKT 470 Marketing Research.** Three sem hours  
A course to develop the skills and attitudes required to specify and utilize market and buyer information in defining marketing problems and making marketing decisions. Applied marketing research problems will be investigated through readings and case studies.  
Prereq: MKT 360 Principles of Marketing.

**MKT 473 Marketing Environment.** Three sem hours  
Extensive treatment of the uncontrollable variables affecting marketing management. Emphasis given to the cultural and social environment, political and legal environment, business conditions and structure and the goals of the firm.  
Prereq: MKT 360 Principles of Marketing.

**MKT 474 Promotional Strategy.** Three sem hours  
 In this course the key problems of advertising and promotion are explored. Emphasis is given to the appropriate use of research as an aid in advertising decision-making. Topics considered include development of advertising campaigns, determining the advertising effectiveness, client-agency relationships and societal impact of advertising.  
 Prereq: MKT 369 Advertising.

**MKT 475 Marketing Management.** Three sem hours  
 Integration of marketing activities and planning the marketing program. Attention given to the contribution of economics, behavioral sciences, statistics and mathematics to the field of marketing. Case analysis used.  
 Prereq: Marketing Major with senior standing or permission of department.

**MKT 479 Practicum in Marketing.** Three sem hours  
 The purpose of the practicum will be to select a marketing topic and study it in depth, emphasizing related disciplines and appropriate decision-making tools.  
 Prereq: Permission of the department. Graded credit/no credit.

• **MKT 487 Cooperative Education in Marketing.** Three sem hours  
 Four months of full-time employment at a business or public organization in a marketing position. Elective credit only. Graded credit/no credit.  
 Prereq: MKT 387 Cooperative Education in Marketing.

**MKT 489 Internship Program.** Three sem hours  
 Directed full-time work experience in the marketing phrase of a business organization.  
 Prereq: Marketing major and permission of the department. Graded credit/no credit.

**MKT 497, 498, 499 Independent Study.** One, two, three sem hours  
 Directed study of a problem or groups of problems in marketing not otherwise treated in departmental courses.  
 Prereq: Senior status and permission of the department.

**Law Courses**

New courses are identified with a bullet •.

**LAW 214 Consumer Law.** Three sem hours (formerly ADS 214)  
 This is a survey course designed to acquaint the student with consumer problems and consumer-oriented legislation. Topics include consumer credit, retail sales transactions, consumer remedies, and real estate transactions.

**LAW 293 Legal Environment of Business.** Three sem hours (formerly ADS 303)  
 The nature of law, the judicial system and legal procedure. Basic ideas of the law of crimes and torts. Enforceability of contractual arrangements, sanctions for their breach, justifiable excuses for non-performance. Sales of goods and other transactions under the Uniform Commercial Code. Reconciling the interests of parties to business transactions, including customers, dealers, managers, stockholders and the public.

**LAW 313 Legal Research.** Three sem hours (formerly ADS 313)  
 The student will develop skill in legal research through the performance of research on several actual legal problems. The results will be presented in written form.  
 Prereq: One law course.

**LAW 393 Law of Business Enterprises.** Three sem hours (formerly ADS 304)  
 Legal problems of business enterprises. The relationships of employer and employee, principal and agent, master and servant. Special advantages of corporations and partnerships. Legal problems of corporations, including rights and powers of directors and stockholders. Financial transactions, the law of bills and notes and creditors' rights.  
 Prereq: 293 Legal Environment of Business or department permission.

**LAW 403 Labor Law.** Three sem hours (formerly ADS 403)  
 Designed to present the legal framework within which the business (or public) manager must make personnel and labor relations decisions; primary emphasis on labor relations, showing historical development of government policies and outlining major problem areas; limited coverage of labor standards and related matters.  
 Prereq: 293 Legal Environment of Business

**LAW 408 Administrative Law.** Three sem hours (formerly ADS 408)  
 This course presents the student who wishes a legal background in the public administration area a view of the legal system as it functions in administrative agencies, including federal, state and local. It provides an analysis of the system whereby legislative and judicial powers are delegated to specialized agencies, which have a more complex procedure than the courts.

**LAW 455 Real Estate Law.** Three sem hours (formerly ADS 455)  
 Legal principles involved in real estate transactions. Contracts for sale of real estate, evidence of title, deeds, financing, legal position of brokers, leases, zoning, real estate taxes.  
 Prereq: 293 Legal Environment of Business or RES 210 Real Estate Principles and Practices.

**MARKETING**

Adviser Chairman, **Robert Williams**  
 (487-3323)  
 Marketing Department

**Major in Marketing**

Students in the field of marketing are required to complete the following area of concentration in addition to the general requirements for the Bachelor of Business Administration degree on page 176:

	<b>Semester Hours</b>
Marketing Area of Concentration .....	24
Required .....	12
MKT 365 Buyer Behavior .....	3
MKT 368 Marketing Strategy .....	3
MKT 470 Marketing Research .....	3
MKT 475 Marketing Management .....	3
Electives .....	12

(Students majoring in marketing are encouraged to complete one of the following areas of specialization.)

**Advertising and Sales Promotion.** The advertising concentration prepares students for positions leading to careers as an account executive, sales promotion manager and advertising manager. Areas of interest include the communication process, selection of the advertising appeal, media choice and the advertising campaign, among others.

ENG 325 Expository Writing or 215 Journalism .....	3
MKT 369 Advertising .....	3
SPH 446 Broadcasting in Society or FA 301 Graphic Design .....	3
MKT 474 Promotional Strategy .....	3

**Distribution Management.** The distribution concentration prepares students for careers as retail operations manager, distribution manager, trade relations manager, and traffic manager. Marketing channels, relations between manufacturers, wholesalers and retailers, cost of alternative distribution systems are just some of the topics emphasized in this area.

MKT 364 Logistics Systems .....	3
ECO 366 Economics of Transportation .....	3
ORI 317 System Simulation .....	3
Elective .....	3

**International Business.** The international business concentration prepares students for careers in a variety of positions in organizations conducting business in foreign environments. Course work describing international trade, foreign exchange, comparative advantage, and marketing opportunity assessment is included.

GEO 235 Economic Geography .....	3
ECO 480 International Economics .....	3
MKT 520 International Business .....	3
Elective .....	3

(Course work in a foreign language is suggested)

**Marketing Research.** The marketing research concentration prepares students for a variety of positions in the research field such as research analyst and director of marketing research. Topics such as problem definition, research design, data collection and analysis, and making recommendations based on research are stressed.

ECO 445 Economic Fluctuations and Forecasting .....	3
ORI 465 Business Statistics II .....	3
Electives .....	6

**Retailing.** The retailing concentration prepares students for careers as retail buyers, merchandising managers and store managers. Course work in this field covers such subjects as

retailing as an institution, site selection, product assortment, merchandising, retail advertising and inventory control.	
MKT 261 Contemporary Selling .....	3
MKT 363 Retailing .....	3
MKT 369 Advertising .....	3
MGT 384 Personnel Administration .....	3

**Sales and Sales Management.** The Sales and Sales Management concentration prepares students for such careers as salesman, district sales manager and corporate sales manager. Areas stressed include techniques of selling, sales psychology, sales training, sales forecasting, purchasing procedures and value analysis.

MKT 261 Contemporary Selling .....	3
MKT 374 Industrial Marketing and Purchasing .....	3
MKT 461 Sales Management .....	3
MGT 384 Personnel Administration .....	3

**Minor in Marketing (Non-teaching)**

Students who are not majors in the College of Business may elect to minor in marketing.

	<b>Semester Hours</b>
<b>Marketing Minor (for non-business majors)</b>	<b>21</b>
Required .....	9
ACC 240 Principles of Accounting .....	
MKT 360 Principles of Marketing .....	
MGT 382 Introduction to Management .....	
Marketing Electives .....	
Business Electives (approved by adviser)	
Marketing Electives for Minors:	
MKT 261 Contemporary Selling .....	
MKT 363 Retailing .....	
MKT 364 Logistics Systems .....	
MKT 365 Buyer Behavior .....	
MKT 368 Marketing Strategy .....	
MKT 369 Advertising .....	
MKT 374 Industrial Marketing and Purchasing .....	
MKT 461 Sales Management .....	
MKT 470 Marketing Research .....	
MKT 520 International Business .....	
MKT 473 Marketing Environment .....	
MKT 474 Promotional Strategy .....	
MKT 475 Marketing Management .....	

# OPERATIONS RESEARCH AND INFORMATION SYSTEMS

Department Head: V. M. Rao Tummala

Professors: Assad S. Khailany, Fathi Sokkar, V. M. Rao Tummala, Nesa L. Wu

Associate Professors: Sergio Antiochia, Roger Gledhill, Clayton S. Long, Pedro Sanchez, Kenneth C. Young

Assistant Professors: Wayne C. Ellis, Charles Saxon, Andrew Vander Molen

Instructors: Terry Truax

This department prepares graduates for careers in three applied areas: (1) business information systems, (2) management science and operations research, and (3) production systems. Students may major or minor in Business Computer Systems (see page 190) and may complete electives in Management Science and Production Systems Analysis.

A major and minor have also been developed in Production Systems Analysis, described on page 190. Students may also choose courses to meet elective requirements.

## ORIS Courses

New courses are identified with a bullet •.

**MTH 118 Mathematical Analysis for Social Sciences I.** **Three sem hours**  
(See Department of Mathematics and Computer Science).

**MTH 119 Mathematical Analysis for Social Sciences II.** **Three sem hours**  
(See Department of Mathematics and Computer Science).

**ORI 215 Introduction to Business Information Systems.** **Three sem hours**  
Basic elements of business information systems including hardware, software, and programming. Students will develop and execute a number of programs using a high level language.  
*Prereq: 118 Mathematical Analysis for Social Science I. Students must complete this course by the end of their sophomore year.*

**ORI 219 COBOL Programming.** **Three sem hours**  
(formerly ORI 316)  
A detailed study of the COBOL programming language, data file organization, table handling, sequential and random access methods, and other techniques typically encountered in computer-based information systems.  
*Prereq: ORI 215 Introduction to Business Information Systems*

**ORI 265 Business Statistics I.** **Three sem hours**  
(formerly ORI 365)  
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, regression and correlation analysis.  
*Prereq: 119 Mathematical Analysis for Social Sciences II.*

**ORI 317 System Simulation.** **Three sem hours**  
(formerly Simulation and Systems Analysis)  
Computer-based simulation techniques for business analysis and decision-making. Random number and process generators, system simulation models and specialized computer simulation languages are discussed, with particular emphasis on simulation of discrete time systems and the GPSS language. Students analyze and program several simulation models using GPSS and other programming languages.  
*Prereq: ORI 215 Introduction to Business Information Systems and ORI 265 Business Statistics I.*

**ORI 367 Computer Augmented Statistics.** **Three sem hours**  
This course requires use of the computer to aid and augment the study of statistical concepts. Emphasis in the social science area is not only to learn introductory statistics, but how to apply the computer for statistical analysis including graphical techniques, averages, measures of dispersion, hypothesis testing, regression and non-parametrics.  
*Prereq: Junior standing and Math 118 Mathematical Analysis for Social Sciences I.*

**ORI 374 Production/Operations Management.** **Three sem hours**  
An examination of the major design, operation, and control problems of production/operations management in manufacturing and service organizations. Topics include product or service design; facilities location, design and layout; productivity including job design, standards and incentive plans; materials management including forecasting, purchasing and inventory control; production control; and quality assurance and control.  
*Prereq: ORI 265 Business Statistics I and MGT 382 Introduction to Management.*

• **ORI 387 Cooperative Education in Operations Research and Information Systems.** **Three sem hours**  
Four months of full-time employment at a business or public organization for imparting a practical education experience in Computer-based Information Systems and Production/Operations Management disciplines. Use on a Business Computer Systems or Production Systems Analyst major or minor. Offered on a credit/no credit basis for elective credit only.  
*Prereq: Completion of 3 hours in Information Systems area or Production/Operations Management. Admittance by application only.*

**ORI 390 Management Systems.** **Three sem hours**  
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.  
*Prereq: MGT 382 Introduction to Management. Not open to ORIS majors.*

**ORI 415 Applied Data Structures.** **Three sem hours**  
(formerly Design of Computer-Based Information Systems)  
Design and implementation of data structures, file handling, and search techniques applicable to business information systems; sorting and merging techniques. Primary topics are the business application of data structures, including list processing, and practical experience with external files in a complete computer system environment.  
*Prereq: ORI 219 COBOL Programming or permission of the department.*

**ORI 416 Computer Operating Systems.** Three sem hours  
(formerly Business Operating System Analysis)  
Decision methods and concepts for determining the types of computer operating systems required for a particular business environment. Discussion includes various operating systems designs with respect to allocation and utilization of resources, the acceptance, executive and presentation portions of the systems, and large and small operating systems to be considered for the business environment.  
Prereq: ORI 317 System Simulation.

**ORI 417 Development of Management Information Systems.** Three sem hours  
(formerly Administration of Computer-Based Information Systems)  
Study of the overall development of information systems with emphasis on integrated systems which support management planning and control; the flows and networks of information in organizations within a total systems framework technology.  
Prereq: ORI 215 Introduction to Business Information Systems and ORI 265 Business Statistics I.

**ORI 418 Operations Research.** Three sem hours  
This course discusses the development of various determinate and stochastic models and their application in business decision-making. Specifically, it presents the theory and application of linear and nonlinear programming models; waiting line models; activity network models; and inventory control Monte Carlo simulation. Software packages and computer-based decision models will be considered in the solution procedure of the above models.  
Prereq: ORI 215 Introduction to Business Information Systems, ORI 265 Business Statistics I and MGT 382 Introduction to Management or equivalent.

**ORI 419 Data Base Management Systems.** Three sem hours  
(formerly Integration of Computer-Based Information Systems)  
Covers data base concepts for large scale information systems. Emphasis will be placed on developing logical and physical designs for data element usage. Analysis of data base management systems will be covered.  
Prereq: ORI 215 Introduction to Business Information Systems and ORI 219 COBOL Programming.

**ORI 426 Advanced Structured COBOL Programming.** Three sem hours  
(formerly Advanced COBOL for Business Systems)  
Provides students with experience as a member of a team while developing integrated information systems in Structured COBOL. Topics include searches, reporting, subprograms, random files, indexed sequential files, various sorting routines, debugging techniques, programming style, optimization techniques, structured and modular programming concepts, transferability and portability strategies, and documentation, including writing program specifications and users' manuals.  
Prereq: ORI 219 COBOL Programming.

**ORI 428 Linear Programming.** Three sem hours  
A thorough investigation of the theory and business applications of linear programming models. Topics include 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: ORI 215 Introduction to Business Information Systems and MGT 382 Introduction to Management or equivalent.

**ORI 441 FORTRAN Programming Language.** One sem hour  
(formerly 400)  
An introduction to FORTRAN language. Topics include variables and constants, format statements, input/output, arithmetic and logical assignment statements, dimension statements and subscripts, sub-programs and advanced I/O statements.  
Prereq: None. Credit can be earned only by non-business undergraduate majors or by graduate students meeting a programming language requirement.

**ORI 442 COBOL Programming Language.** One sem hour  
Organization of the COBOL programs. Detailed discussion of identification division, environment division, data division, procedure division, table handling, sub-programs; arithmetic, logical, conditional, and input/output statements.  
Prereq: None. Credit can be earned only by non-business undergraduate majors or by graduate students meeting a programming language requirement.

**ORI 447 Basic Assembly Language.** Two sem hours  
Introduction to assembly language. Detailed discussion of data format, storage allocation, symbolic programming, macro definition, data movement and branching, arithmetic operations, editing, tables, indexing, sub-routines, program linkage and interrupts.  
Prereq: ORI 215 Introduction to Business Information Systems or equivalent. Credit can be earned only by non-business majors or by graduate students meeting a programming language requirement.

**ORI 465 Business Statistics II.** Three sem hours  
Statistical methodology with an emphasis on business applications. Topics include reviews of descriptive measures, probability, sampling and sampling distributions; other topics include properties of parametric point estimators, classical techniques in interval estimation of parameters and testing of hypotheses, and introduction to nonparametric techniques, simple and multiple linear correlation and regression, and analysis of variance.  
Prereq: ORI 265 Business Statistics I.

**ORI 474 Material Management and Quality Control Problems.** Three sem hours  
A thorough investigation of problems related to material management and quality control will be made through the use of quantitative techniques and computer based analysis. Topics include: purchasing, inventory control of purchased or manufactured items, control charts and acceptance sampling.  
Prereq: ORI 418 Introduction to Operations Research.

**ORI 475 Design Problems of Operating Systems.** Three sem hours  
An in-depth qualitative, quantitative and computerized analysis of problems related to the design of manufacturing and non-manufacturing systems. Topics include: product or service design; process planning; plant location; layout of facilities; and job design and work measurement.  
Prereq: ORI 418 Introduction to Operations Research.

**ORI 476 Operations Planning and Scheduling Problems.** Three sem hours  
This course will investigate the use of quantitative techniques and existing computer programs to analyze and solve various operations planning and scheduling problems. Topics include: prediction of production requirements; maintenance; aggregate planning and scheduling; planning and scheduling for flow shop, job shops and large scale projects.  
Prereq: ORI 418 Introduction to Operations Research.

• **ORI 487 Cooperative Education in Operations Research and Information Systems.** **Three sem hours**  
 Four months of full-time employment at a business or public organization for imparting a practical education. Experience in Computer-based Information Systems and Production/Operations Management disciplines. Use on a Business Computer Systems or Production Systems Analyst major or minor. Offered on a credit/no credit basis for elective credit only.  
 Prereq: Completion of 3 hours in Information Systems area or Production/Operations Management and ORI 387. Admittance by application only.

**ORI 489 Internship Program.** **Three sem hours**  
 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 6 hours.  
 Prereq: Major and permission of the department.

**ORI 497, 498, 499 Independent Study.** **One, two, three sem hours**  
 Directed study of a problem or group of problems in computer-based information systems, production systems or management science.  
 Prereq: Permission of the department.

**BUSINESS COMPUTER SYSTEMS**

Adviser Chairman, **V. M. Rao Tummala**  
 (487-2454)

Operations Research and Information Systems Department

This program provides a comprehensive study of computer-based information systems. Emphasis is given to the role and application of the computer in making management decisions. Students specializing in this program are prepared for careers as systems analysts, programmer analysts and as information systems administrators.

The course of study includes such topics as computer systems analysis and design, information systems design and programming of computer systems.

**Business Computer Systems Major** (24 semester hours) (To be completed in conjunction with the Bachelor of Business Administration degree, page 176)

	Semester Hours
Required: .....	15
ORI 219 COBOL Programming .....	3
ORI 317 System Simulation .....	3
ORI 415 Applied Data Structures .....	3
ORI 417 Development of Management Information Systems .....	3
ORI 418 Operations Research .....	3
Restricted Electives .....	3
ORI 239 (Mathematics) Assembly and Machine Language Programming .....	3
ORI 416 Analysis of Computer Operating Systems .....	3
ORI 419 Data Base Management Systems .....	3
ORI 426 Advanced Structured COBOL Programming .....	3
ORI 446 (Accounting) Financial Information Systems .....	3
Adviser approved electives at the junior and senior level	
(Elect one area for a concentration if desired) ..	6
Management Science and Operations Research	
ORI 390 Management Systems .....	3
ORI 416 Analysis of Computer Operating Systems .....	3
ORI 419 Data Base Management Systems .....	3
ORI 465 Business Statistics II .....	3

Production Systems	
Elective in Production	
ORI 428 Linear Programming .....	3

**Business Computer Systems Minor** (21 Semester Hours) (a non-teaching minor for non-business majors)

	Semester Hours
Required: .....	15
ORI 215 Introduction to Business Information Systems .....	3
ORI 240 Principles of Accounting .....	3
ORI 219 COBOL Programming .....	3
ORI 382 Introduction to Management .....	3
ORI 415 Applied Data Structures .....	3
ORI 418 Operations Research .....	3
Electives from the following .....	6
ORI 317 System Simulation .....	3
MTH 337 Computer Programming Languages ..	3
ORI 415 Applied Data Structures .....	3
ORI 416 Analysis of Computer Operating Systems .....	3
ORI 417 Development of Management Information Systems .....	3
ORI 418 Operations Research .....	3
ORI 419 Data Base Management Systems .....	3
ACC 446 (Accounting) Financial Information Systems .....	3

**PRODUCTION SYSTEMS ANALYSIS**

Adviser Chairman, **V. M. Rao Tummala**  
 (487-2454)

Operations Research and Information Systems Department

This program is planned to prepare its graduates with the background needed to obtain an initial job, as well as that needed to advance to upper levels of management, in areas related to production planning and scheduling, material procurement, inventory control, project scheduling, quality control, layout of facilities and time and motion studies. It should enable its graduates to work in various kinds and sizes of production systems as well as to pursue their studies in related areas at the graduate level. The program aims to be responsive to social, economic, and technological developments and to reflect the application of related evolving knowledge in both behavioral and quantitative sciences.

**Production Systems Analysis Major** (24 semester hours) (To be completed in conjunction with the Bachelor of Business Administration degree, page 176)

	Semester Hours
Required: .....	15
ORI 417 Development of Management Information Systems .....	3
ORI 418 Operations Research .....	3
ORI 475 Design Problems of Operating Systems .....	3
ORI 476 Operations Planning and Scheduling Problems .....	3
ORI 474 Material Management and Quality Control .....	3
Restricted Electives .....	9
ORI 219 COBOL Programming, or	
ORI 317 System Simulation .....	3
ACC 342 Managerial Cost Accounting, or	
ACC 466 Financial Information Systems .....	3
MGT 384 Personnel Management, or	
PSY 351 Industrial Psychology .....	3



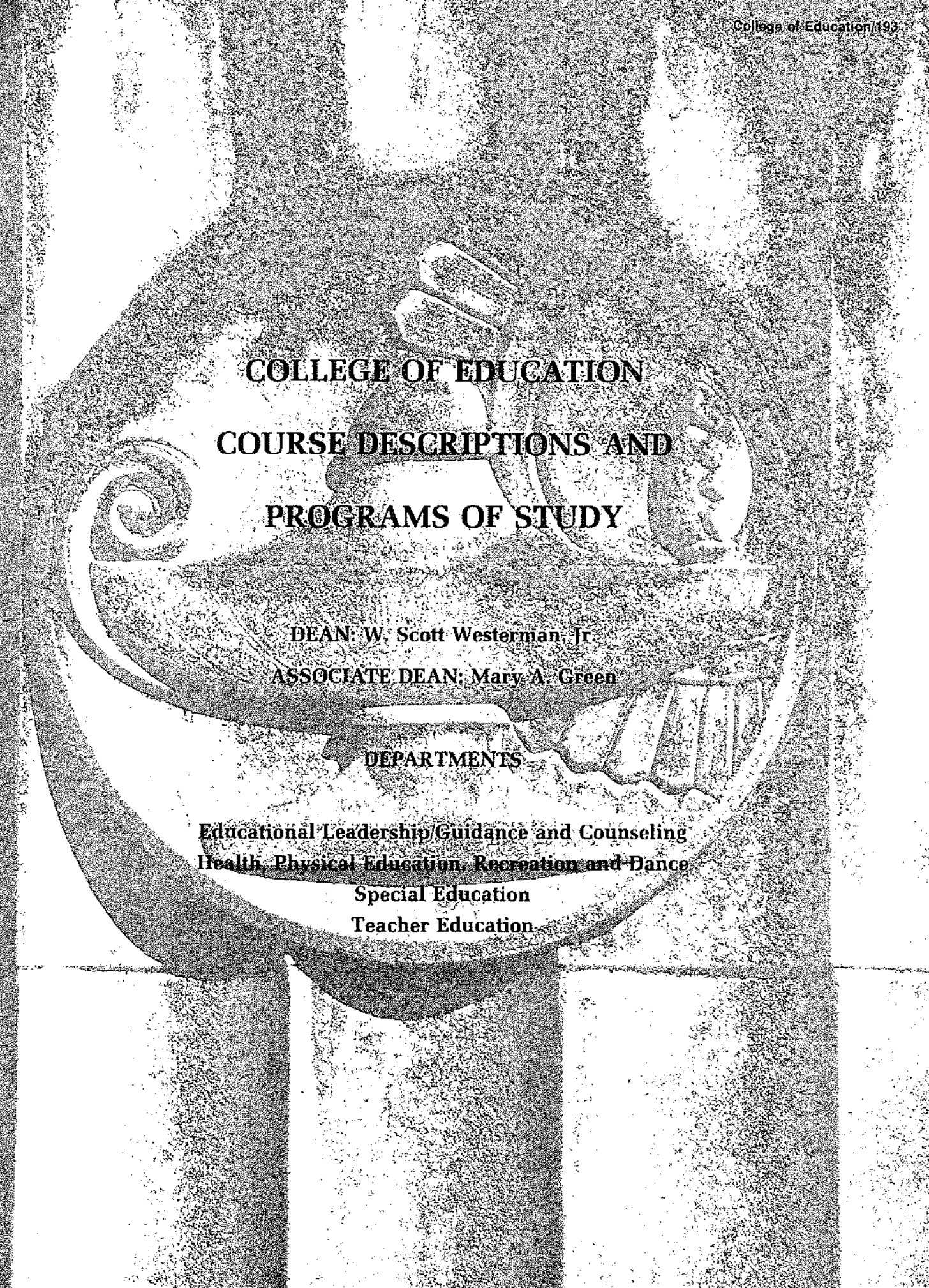
**Production Systems Analysis Minor (21 Semester Hours)**  
 (A Non-Teaching minor for non-business majors)

Students from departments other than those of the College of Business may elect to have a minor in "Production Systems Analysis." In this case, a student must take 15 semester hours in the required courses and 6 in the restricted electives. These required and restricted elective courses are listed below:

	<b>Semester Hours</b>
Required Courses	15
MGT 382 Introduction to Management	3

ORI 418 Operations Research	3
ORI 475 Design Problems of Operating Systems	3
ORI 476 Operation Planning and Scheduling Problems	3
ORI 474 Material Management and Quality Control	3
Restricted Electives	6
ORI 219 COBOL Programming, or	
ORI 417 Development of Management Information Systems	3
MGT 384 Personnel Management, or	
PSY 351 Industrial Psychology	3





**COLLEGE OF EDUCATION**  
**COURSE DESCRIPTIONS AND**  
**PROGRAMS OF STUDY**

**DEAN: W. Scott Westerman, Jr.**

**ASSOCIATE DEAN: Mary A. Green**

**DEPARTMENTS**

**Educational Leadership/Guidance and Counseling**

**Health, Physical Education, Recreation and Dance**

**Special Education**

**Teacher Education**

## CURRICULA FOR TEACHERS

The College of Education is comprised of the Departments of Educational Leadership/Guidance and Counseling; Health, Physical Education, Recreation, and Dance; Special Education; Teacher Education and the Offices of Student Teaching, Pre-Student Teaching and Admissions.

The College of Education:

1. supervises selection, advisement and retention of students who are preparing for teaching certificates.
2. provides instruction in professional course work for students preparing for teaching certificates.
3. places and supervises pre-student teachers.
4. places and supervises student teachers.
5. provides service courses for other colleges and departments of the University.
6. provides specialized course work for students in curricula other than teacher education.

Students seeking the bachelor's degree and a teacher's certificate may select from 15 curricula the one which will allow them an opportunity to develop competency in the teaching field of their choice.

The 15 curricula are:

### Curricula for Elementary Teachers

1. Early Childhood Education
2. Early Elementary
3. Later Elementary

### Curriculum for Secondary Teachers

1. Junior-Senior High School

### Curriculums for Teachers of Specialized Subjects

1. Art
2. Bilingual Education
3. Business Education
4. Consumer and Home Economics Education
5. Dance
6. Industrial Education
7. Library Librarians in elementary, junior and senior high schools)
8. Music
9. Physical Education
10. Recreation
11. Special Education

## TEACHING CURRICULUM REQUIREMENTS

### Admission

In addition to general University curricular requirements, there are certain requirements common to all teaching curricula. They are as follows:

#### Application for Admission

Admission to the College of Education is not automatic. Students apply for admission at the time they decide to pursue teaching as a career, usually in their sophomore year. Application forms are available in, and should be returned to the Office of the Dean of the College of Education, 117 Boone Hall.

### Criteria for Admission and Continuance

Admission to and continuance in professional education courses (Group IV courses) is based upon the following requirements:

1. Scholarship: a minimum grade point average of 2.0.
2. Acceptable standing in the department of instruction in which the major and/or minor(s) are pursued.
3. Demonstrated competence in:
  - a. Speaking effectiveness as determined by test.
  - b. Reading ability.
  - c. Written expression.
  - d. Arithmetical computation.
4. Satisfactory health status certified by the University Health Service.
5. Social and emotional adjustment: account will be taken of standards of conduct expected on this campus, the degree to which the student meets his or her academic, financial, moral, social and other obligations, and the extent to which he or she practices good citizenship among his fellow students.
6. Freedom from any kind of probation — administrative or academic. While on academic probation, no student may register for, remain in or receive credit for a Group IV Professional Education course offered by the following departments or divisions within the College of Education: Educational Leadership/Guidance & Counseling, Special Education, Teacher Education, HPER&D and Student Teaching. This includes all strictly Group IV methods classes listed by cross-reference in these departments, even though the courses are also listed by and taught in other departments. It does not include the following introductory courses: CUR 100 Introduction to Education, EDP 100 Introduction to University Study, G & C 100 Career Exploration and Decision-Making, SLI 241 Introduction to Speech Pathology and SGN 251 Education of Exceptional Children.

No credit may be earned in any graduate level course (500 and above), on-campus or off-campus, while an undergraduate student is on academic probation.

## PRE-STUDENT TEACHING

Director: **Robbie A. Johnson**

The pre-student teaching experience is designed to familiarize the college student with learners in elementary and secondary situations. The pre-student teaching experience should enable the student to understand college work dealing with human growth and development, the nature of the learning-teaching process and the societal context within which the school operates. The experience should help College of Education students evaluate themselves as an emerging teacher and should stimulate choice-making decisions.

Two twenty-four hour pre-student teaching experiences are required of all candidates for a teaching certificate. By the end of the pre-student teaching 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 of the proficiencies needed for classroom management.
4. Understand the characteristics of students in the public schools.
5. Describe some teaching methods and teaching behaviors.
6. Make a valid decision concerning teaching as a career.

Majors in speech correction, emotionally impaired and physically impaired should consult their advisors or the Pre-Student Teaching Office concerning overlapping pre-clinical requirements.

Pre-Student Teaching may not be completed prior to acceptance into the College of Education.

Pre-Student Teaching may not be completed prior to enrollment in EDP 320 Human Growth and Development or EDP 302 Educational Psychology.

At least one of the twenty-four hour experiences must be in a classroom situation with the age group and in the subject matter the prospective teacher plans to teach.

The pre-student teaching activity selected must be approved by the instructor of CUR 326 School and Society, CUR 303 Principles of Teaching, EDP 320 Human Growth and Development or EDP 302 Educational Psychology or by the director of Pre-Student Teaching.

## STUDENT TEACHING

Director, **Robbie A. Johnson**

All candidates for teaching certificates or endorsements 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 early elementary, later elementary and secondary programs are required to complete successfully eight semester hours of student teaching. Students desiring K-12 certification in special academic areas are also required to complete successfully eight semester hours of student teaching. Students in Special Education areas (EI, MI, HI, etc.) are required to fulfill four semester credit hours of student teaching with regular children and an additional four to eight semester hours of student teaching in their area of specialization. Students desiring certification in Bilingual Education are required to fulfill four semester credit hours of student teaching with regular children and an additional four semester credit hours of student teaching in Bilingual Education. Refer to specific curricular areas for precise credit hour requirements.

In order to qualify for student teaching placement, the student must satisfy the following criteria:

1. A student must have fulfilled the requirements of pre-student teaching in order to be placed in a student teaching assignment.
2. Students shall demonstrate minimum levels of skills in speech, written English and mathematics as defined and measured by the appropriate academic departments.
3. No student shall be assigned to student teaching whose grade point average is less than 2.25 in work completed at Eastern Michigan University and 2.50 in the teaching major (including work done at other colleges if applicable). Students enrolled in the Elementary Education program must attain a minimum grade point average of 2.50 in at least two teaching minors in lieu of the 2.50 in the teaching major.
4. Student teachers shall demonstrate a minimum level of skill in working with students as evidence by written testimony and/or written endorsement by their course instructors and field supervisors. This will be part of the student teacher's file.
5. The student must register in the appropriate student teaching course. Refer to appropriate page in this catalog for a description of these courses.
6. The student must be at least a second semester junior in order to apply for student teaching.
7. The standard class load for student teachers is fifteen semester hours. To be considered by the Director of Student Teaching for more than fifteen semester hours, the student must have a 3.0 cumulative index.

8. Students are expected to have completed one semester of resident study at Eastern Michigan University prior to student teaching. Exceptions are subject to approval by the dean of the College of Education.

The Student Teaching Office will attempt to accommodate a student's request for preferred student teaching placement.

In specifying a particular school district, the student is advised to avoid the following: districts in which a parent or a relative is employed by the district board of education; districts in which the student has a record of significant prior involvement; districts which are outside of the list of the student teaching program.

The Director of Student Teaching must approve all placements outside the list of Eastern Michigan University cooperating districts. Request for 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 accredited institution.

Students enrolled at another institution in Michigan or in another state, who wish to do their student teaching at Eastern Michigan University, are advised to consult the Director of Student Teaching on their campus prior to submitting the request to the University. Students granted guest student status for student teaching are expected to have fulfilled all prerequisites required for student teaching at the home institution.

Placement in the summer session student teaching program is made for teachers already certified in another area.

When students are doing student teaching, they should arrange their daily schedule so that teaching will take precedence over other interests and duties.

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.

Students requesting placements beyond a 40 mile radius from Eastern Michigan University may be assessed a mileage fee.

The following prerequisites are to be completed prior to student teaching:

1. EDP 302 Educational Psychology and CUR 303 Principles of Teaching or EDP 320 Human Growth and Development and CUR 326 School and Society.
2. Early Elementary: Two of the specific methods courses (CUR 314 Teaching of Reading and the Language Arts, MTH 381 Teaching of Mathematics.)
3. Later Elementary: Two of the specific methods courses (CUR 314 Teaching of Reading and the Language Arts, MTH 381 Teaching of Mathematics.)
4. Junior-Senior High School: A special methods course in the major or minor field.
5. Specialized fields: The appropriate special methods courses in the major field. Students who teach in their minor specialized field must complete the methods course in that field.

Applications for student teaching may be obtained from the Student Teaching Office in 31 Boone Hall. Applications should be completed and returned to the Student Teaching Office in accordance with the following schedule: January 15 for Fall and Spring semester student teaching; March 1 for Summer student teaching; June 15 for Winter student teaching. Priority during spring session is given to Special Education students who need four semester hours of credit in regular student teaching. Applications for student teaching will be accepted after the deadline and up to 30 days prior to the beginning date of the semester in which a student wishes to student teach. However, placement priority is given to those students who file in accordance with the deadline dates. Late applicants are not guaranteed placement.



## MICHIGAN CONSUMER EDUCATION CENTER

Director, **Rosella Bannister**

The Michigan Consumer Education Center is a state-wide professional development center in consumer education.

Housed in the Center of Educational Resources at Eastern Michigan University, the Consumer Education Center is a cooperative project of the U.S. Office of Consumers' Education and Eastern Michigan University.

The Center's services include:

1. Teacher education through credit courses, in-service workshops, state conferences, newsletters and publications.
2. Consultant services in program development to educational agencies, government, business, labor and community consumer groups.
3. A loan library of teaching-learning resources including films, media kits, curriculum guides and textbooks for preview and evaluation.

Students and faculty at the University, as well as K-12 classroom teachers and community groups, are encouraged to use the Center's services.

A state-wide consumer education conference is held each October, and a graduate credit workshop in consumer education is held each year at Eastern Michigan University.

Among the publications are:

- Consumer Education Resources Catalog
  - Consumer Education Newsletter
  - Filing System for Consumer Education Materials
  - Concurrent Performance Indicators in Career and Consumer Education
  - Careers in Consumer Affairs
  - Michigan Consumer Law Handbook
  - Bibliographies on various consumer concerns
- An Advisory Committee to the Center is made up of representatives of business, labor, government, education and citizen-consumer groups.

## COURSE CLASSIFICATION

Unless otherwise designated, the 300 and 400 series courses are classified in Group IV and are open only to students of junior standing or above who have a scholarship average of C or better, and who have made application and have been admitted to professional education. The courses EDP 206 Mental Hygiene, LIT 207 Introduction to Children's Literature, EDP 302 Educational Psychology, and EDP 320 Human Growth and Development may be taken by students of sophomore standing. Courses marked with an asterisk are located outside of the Department of Teacher Education.

## EDUCATIONAL LEADERSHIP/ GUIDANCE AND COUNSELING

Educational Leadership/Guidance and Counseling

Acting Department Head: Jack D. Minzey

Professors: George J. Brower, Francis M. Daly, Kenneth Grinstead, Winton A. Kloosterman, Jack D. Minzey, Paul A. Nau, John G. Pappas, Louis C. Thayer, Benjamin W. Van Riper

Associate Professors: Doris Kilanski, William F. Kromer, John W. Waidley

Assistant Professors: Irene Ametrano, Kent D. Beeler, Donna Schmitt

## GRADUATE STUDY

The Educational Leadership program offers graduate work leading to the master's and specialist's degrees in educational administration. The Guidance and Counseling program is concerned with the professional preparation of elementary and secondary school counselors and personnel workers in colleges and community agencies.

Students who wish to enter either of these programs are reminded that these are graduate level programs. The only undergraduate courses in these areas, described below, provide an introduction to the organization of American education, or concentrate on helping students explore career opportunities or learn about basic guidance concepts and processes. Qualified senior students may enroll in selected graduate courses for undergraduate or graduate credit.

Please consult the Graduate Catalog for rules governing graduate study and for a complete description of all graduate courses and programs.

## EDUCATIONAL LEADERSHIP

### COURSES

New courses are identified with a bullet •.

**EDL 402 Organization of American Education.**

Three sem hours

A study of the organization and control of education in America to determine its purposes, its structural characteristics, its efficiency, and a study of the various educational roles.

*Prereq:* One professional education class or departmental permission.

**EDL 478, 479 Special Topics.** Two and three sem hours

A course which can be offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations.

## GUIDANCE & COUNSELLING

### COURSES

New courses are identified with a bullet •.

**G&C 100 Career Exploration and Decision-Making.**

Two sem hours

Focuses on self-exploration (values, interests, goals) as it relates to careers and the world of work. Career exploration and personal decision-making strategies and processes will be presented in an experiential format. Acquaintanceship with career planning and resources (people and materials) is provided.

**G&C 405 Basic Guidance Concepts and Processes.****Two sem hours**

Introduces basic concepts of helping relationships; offers training in human relations skills; and provides experiential activities which focus on learning and guidance processes. Open to juniors and seniors; recommended to be taken prior to student teaching.

Prereq: CUR 303 Principles of Teaching or CUR 326 School and Society; non-education majors by permission of adviser.

**G&C 478, 479 Special Topics.****Two and three sem hours**

Courses which can be offered on an experimental basis for one semester for purposes of meeting special needs, interests, and/or innovations.

## HEALTH, PHYSICAL EDUCATION, RECREATION AND DANCE

**Department Head:** Patric L. Cavanaugh

**Professors:** John R. Adams, Mary A. Green, Marvin J. Johnson, Elizabeth A. Menzi, Erik J. Pedersen, John E. Sheard, Peggy A. Steig, Roger L. Williams, Robert J. Willoughby, Charles X. Witten

**Associate Professors:** Gary C. Banks, Geraldine K. Barnes, Mary I. Bell, Jean S. Cione, Jeannine M. Galetti, Michael T. Jones, Valerie T. Moffett, Robert C. Parks, Ronald J. Saunders, Matilda Y. Sayegh, Claudia B. Wasik, Myrna A. Yeakle

**Assistant Professors:** Russell L. Bush, Sanford J. Dornbos, Allan P. Freund, Robbie A. Johnson, William P. Milne, Gloria D. Neve, Ronald E. Oestrike, Michael J. Paciorek, Dominic A. Taddonio, Ronald M. Venis, Winifred Witten, Charlotte K. Wixom

**Instructors:** Margaret E. Bell, Linda Hemmelgarn, Gary Strickland

### GRADUATE STUDY

The Health, Physical Education, Recreation and Dance Department offers graduate work leading to the master's degree in physical education. For descriptions of graduate courses and programs in the department, please consult the Graduate Catalog.

### HEALTH COURSES

New courses are identified with a bullet •

**HED 110 Introduction to Safety Education.** **Two sem hours**  
Stress is placed on the scope and methods of safety education, along with securing and evaluating up-to-date information on the safety needs of students, parents and the community. Materials to be utilized in the various areas of safety education will be presented.

**HED 120 Healthful Living.** **Three sem hours**  
Should develop in students the responsibility for guiding and evaluating their own health. It promotes the acquisition of attitudes, habits, skills and ideas favorable to efficient and healthful living. It includes material and information concerning mental, physical and social well-being. Presented and developed through group discussion, lectures, instructional aids.

**HED 210 Standard American Red Cross First Aid.** **Two sem hours**  
For all students interested in accident prevention and in the development of the knowledges and skills essential for the immediate care of the suddenly ill or injured. The course is presented through readings, lectures and practical work. Certificates for Standard First Aid and for Cardiopulmonary Resuscitation are awarded upon successful completion of requirements for each.

**HED 320 Health Education in the Elementary Grades.** **Two sem hours**  
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 are taught. A study is made of the application of educational principles in health instruction. Practice is given in evaluating the newer courses in health education. Not open to students with credit in HED 330.

**HED 330 Health Work in the Schools.** Two sem hours  
The context of this course is based upon student objectives, scientific facts and current practices and trends in school health education on the secondary level. An attempt is made to solve problems of instruction, curriculum content, health service, health environment and various vital topics such as: safety emergency care, teaching materials, methods, school safety, emergency care, hygiene, social hygiene, school examinations and records. Here the students become acquainted with the dynamic role they will have in secondary education as health educators. Not open to students with credit in HED 320.

**HED 350 Scientific Foundations in Health.** Three sem hours  
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.** Two sem hours  
A study of the concepts of sex education as they apply to the school setting. Included in the course is 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 380 Psychosocial Concepts of Health.** Two sem hours  
Investigation of the mental and social factors as they affect the health of the human being. The course explores all health concepts and correlates the mental and social phenomena with the physiological principles presented in the scientific foundations course.

**HED 410 Drug Overdose Aid.** Two sem hours  
Outlined by the American Red Cross, this course consists of lectures, textbook and practical application of first aid skills and overdose aid skills to give immediate, temporary help in cases of accidents involving drugs. The course includes listening, feedback and communication skills, and 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.** Three sem hours  
A study of some of the major physiological aspects of aging. The chronic diseases that are associated with the aged will be dealt with to a lesser degree. Included is 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. The course is designed for the general student.  
Prereq: Sophomore standing.

**HED 430 Community Health Resources.** Two sem hours  
Exploration and study of community health programs and resources as they apply to the school health program.  
Prereq: HED 320 Health Education in the Elementary Grades or HED 330 Health Work in Schools.

**PED 204 Kinesiology (Mechanics of Exercise).** Two sem hours  
A textbook course in the mechanism of bodily movements. The separate movements of the upper limbs, lower limbs and trunk are studied first, and then 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 Anatomy and Physiology.

**PED 209 Bio Fitness.** Two sem hours  
The course is designed to emphasize an awareness of individual biological needs and the understanding of how those needs are related to daily habits. Students will be expected to complete an individual fitness profile which will be the basis for an understanding of how desirable changes in fitness are achieved.

**PED 240 History and Philosophy of Physical Education.** Two sem hours  
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 257 Physical Education for the Classroom Teacher.** Two sem hours  
A methods and materials course in which the prospective classroom teacher gains knowledge in organizing and implementing a physical education program.

**PED 281 Motor Development.** Three sem hours  
A study of the continuous process of motor development. Skill in observation and analysis of locomotor, non-locomotor and manipulative patterns will be stressed as a basis for planning and directing movement experiences appropriate for the preschool and elementary school child. Supervised laboratory experience will be provided.

**PED 282 Perceptual Motor Training.** One sem hour  
Planning and effecting gross motor activity programs for students with neurological dysfunction. Assessment procedures and activity sequences will be emphasized. Supervised field experiences required.

**PED 300 Physiology of Exercise.** Three sem hours  
A comprehensive course involving lectures and laboratory work on the physiology of muscle, nerve circulation, and respiration, with special relation to the effects of bodily exercise.  
Prereq: PED 200 Anatomy and Physiology.

**PED 305 Practical Concepts of Conditioning.** Two sem hours  
A practical experience is given to the student in applying the concepts and theories of conditioning to in-class situations as well as coaching. Such programs as interval training will be designed and experienced by the student for use in a particular situation.

**PED 310 Physiology of Human Performance.** Two sem hours  
A study of (1) environmental physiology (heat stress, altitude and underwater physiology) as it relates to physical education; (2) exercise metabolism as it relates to training techniques for endurance, strength, speed, weight control and physical fitness; (3) physiological and structural sex differences as they relate to physical education; and (4) a study of special aids to performance.

## PHYSICAL EDUCATION COURSES

New courses are identified with a bullet •

**PED 200 Anatomy and Physiology.** Five sem hours  
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 312 Athletic Training and Physiotherapy.****Two sem hours**

A course designed for prospective coaches and physical educators which focuses upon principles and skills of athletic training and physiotherapy. In addition to lectures, special attention is given to demonstration and practice of massaging, bandaging, taping and therapeutic measures as applied in athletic activities and injuries.

Prereq: PED 200 Anatomy and Physiology.

**PED 334 Adapted Physical Education.****Two sem hours**

A lecture and participation course covering the philosophy and goals of adapted physical education: the relationship of adapted physical education to the general program in physical education, the needs of the exceptional student, the organization of such a program, the public relations involved, body mechanics, body conditioning, posture, physical examinations and exercises for defects.

**PED 367 Methods and Materials in Physical Education and Recreation.****Three sem hours**

(See Department of Teacher Education, page 217.)

**PED 384 Physical Education for the Visually and Hearing Impaired.****One sem hour**

Planning and effecting physical education programs for visual and hearing impaired students. Adaptations, teaching strategies and activity sequences will be emphasized. Supervised field experiences required.

Prereq: PED 281 Motor Development or PED 334 Adapted Physical Education.

**PED 385 Special Olympics.****Three sem hours**

Planning and effecting Special Olympics participation for mentally impaired students. Content includes task analysis, organization, instructional techniques and program content. Supervised field experiences required.

Prereq: PED 386 Physical Education for the Mentally Impaired and either PED 281 Motor Development or PED 334 Adapted Physical Education.

**PED 386 Physical Education for the Mentally Impaired.**

(formerly 286)

**One sem hour**

Planning and effecting physical education programs for trainable and severely mentally impaired students. Assessment procedures, teaching strategies and activity sequences will be emphasized. Supervised field experiences required.

Prereq: PED 281 Motor Development or PED 334 Adapted Physical Education.

**PED 405 Women in Sport.****Three sem hours**

A study of the patterns, problems and conditions associated with women's sports involvement in selected world cultures, with emphasis on the sportswoman in American society.

**PED 440 Tests and Measurements in Physical Education.****Two sem hours**

(See Department of Teacher Education, page 218.)

**PED 441 Organization and Administration of Physical Education.****Three sem hours**

The study of 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 are studied. Functional construction of gymnasiums, swimming pools, athletic fields and various facilities are reviewed and discussed.

Prereq: Junior-Senior standing.

**PED 477, 478, 479 Special Topics. One, two, three sem hours**

A course which can be offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations.

**PED 481 Aquatics for the Handicapped.****One sem hour**

Aquatic instruction and programming for the special student. Content includes basic methodology, instructional techniques for specific disabilities and program implementation. Students meeting requirements will receive Adaptive Aquatics Instructor Certification from the American Red Cross. Supervised field experiences required.

Prereq: Water Safety Instructor's Certification or equivalent.

**PED 495 Senior Seminar.****Two sem hours**

A course designed to synthesize the educational theories presented in the undergraduate physical education program and the student teaching experience.

**PED 497, 498, 499 Directed Study.****One, two, three sem hours**

Designed to provide 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 status, with a grade point average of 3.0 or above and who have completed the appropriate background courses.*

Prereq: Permission of the department head.

**RECREATION COURSES**

New courses are identified with a bullet •

**REC 190 Recreational Pursuits.****Two sem hours**

(formerly 390 Sports Summary)

This course enables the student to become acquainted with a wide range of recreational pursuits. Class presentations are given by professionals and by students in activities such as kayaking, cross country skiing, and yoga, with the emphasis on participation.

**REC 270 Organization and Administration of Community Recreation.****Three sem hours**

Consists of a study of the organization, administration and financing of community recreation as well as a study of recreation areas and facilities, various types of programs, public relations, program planning and personnel.

**REC 280 Camping.****Two sem hours**

A study is made of the various kinds of organized camps. The course includes the methods of planning and managing camps, how to choose a camp site, kinds of camp shelters; both permanent and temporary, sanitation, survival techniques, safety provisions, leadership and woodcraft. This course is planned to meet the demand for trained leaders for private, semi-public and school camps.

**REC 370 Youth Organizations.****Two sem hours**

Includes a short history, aims and objectives of the programs sponsored by various organizations serving youth on a local and national level. Special emphasis will be placed on the need for trained leadership of youth and youth-serving organizations.

**REC 380 Community Recreation Leadership.****Three sem hours**

Designed to give students an opportunity to study the problems of leadership. The following areas will be considered: summer playgrounds, social recreation, music, arts, dramatics, senior citizens, community center programs and industrial groups.

**REC 477, 478, 479 Special Topics. One, two, three sem hours**

A course which can be offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations.

**REC 480 Recreation Therapy.****Two sem hours**

Designed to assist occupational therapists and majors in recreation in the performance of recreational skills required in hospital programs. The following areas are given attention: music as recreation and recreation through games and sports. Field trips to nearby hospitals.

**REC 489 Field Work in Recreation.****Four sem hours**

Practical experience under supervision in a recreation program directing activities and learning about the administration and supervision of programs. The student would be required to spend at least 10 clock hours per week in the recreation center. Not open to students seeking a teaching certificate. Prereq: Permission of the Recreation Division chairperson.

**REC 490 Organization and Planning of School and Community Programs.****Two sem hours**

A study of the problems involved in organizing and program planning for school assemblies, playdays, carnivals, circuses, demonstrations, swimming pageants and community pageants. Deals with the selection of themes, costuming, musical accompaniment and other factors involved in such programs.

**REC 497, 498, 499 Directed Study. One, two, three sem hours**

Designed to provide 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 status, with a grade point average of 3.0 or above and who have completed the appropriate background courses.

**DANCE COURSES**

New courses are identified with a bullet •

**DAN 106 Introduction to the Performing Arts.****Three sem hours**

The arts of dance, theatre and music are studied both individually and collectively with the objective of determining their respective elements and of arriving at a better understanding and appreciation of the great works of art in the three fields. The place of these arts in our present day environment and their contribution to a richer life receive special emphasis. Labs to be arranged. Attendance required at specified on-campus performances. (Music, Physical Education, Speech and Dramatic Arts Departments)

**DAN 107 Rhythmic Analysis and Dance Accompaniment.****Three sem hours**

The study of rhythm, sound, and music literature as related to the teaching and performing of dance. The course will be supplemented by assigned listening experiences and designed explorations of pertinent elements of music.

**DAN 245 Elements of Dance Composition. Three sem hours**

An introduction to the fundamentals of choreography, including the use of improvisation and the development of compositions. Emphasis will be placed on the exploration and manipulation of the elements of dance.

Prereq: PEP 116 Modern Dance I.

**DAN 255 Dance Production.****Three sem hours**

A study of the fundamentals of dance production including publicity, planning and organization, set design and construction, stage lighting, sound effects and recording costuming and stage make-up. Laboratory projects will be coordinated with dance productions.

**DAN 350 History of Dance.****Three sem hours**

A lecture and reference course designed to cover the history, philosophy and theory of dance from primitive man to modern man, including the social and educational implications of dance today.

**DAN 354 Methods and Materials in Teaching of Dance.****Three sem hours**

(See Department of Teacher Education, page 217.)

**DAN 355 Labanotation.****Three sem hours**

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 245 Elements of Dance Composition, PEP 116, PEP 120 Modern Dance I and II.

**DAN 450 Advanced Dance Composition. Four sem hours**

An extension of the principles explored in the Elements of Composition 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 Rhythmic Analysis and Dance Accompaniment and PEP 150 Modern Dance IV.

**DAN 455 Seminar in Dance.****Two sem hours**

A lecture-discussion course designed for the review of current literature and dance research, the study of trends in dance education and the analysis of developments in contemporary concert dance.

Prereq: DAN 350 History of Dance, DAN 450 Advanced Dance Composition or permission of the department.

**DAN 456 Creative Dance for Children. Two sem hours**

The course is designed to provide students with goals, concepts, materials and experiences to effectively teach children's creative dance.

**DAN 477, 478, 479 Special Topics. One, two, three sem hours**

Courses which can be offered on an experimental basis for one semester for purposes of meeting special needs, interests, and/or innovations.

**DAN 497, 498, 499 Directed Study.****One, two, three sem hours**

Designed to provide an opportunity for directed study in areas not provided in other courses 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 status, with a grade point average of 3.0 or above and who have completed the appropriate background courses.

Prereq: Permission of the department head



## ATHLETIC COURSES

New courses are identified with a bullet •.

### ATH 261 • Techniques of Officiating Men's Sports. Two sem hours

A study of the rules and techniques of officiating several interscholastic sports.

### ATH 262 • Techniques of Officiating Women's Sports. Two sem hours

The following activities are covered: field hockey, basketball, volleyball, softball. In volleyball and basketball, national ratings are given. One hour theory, two hours practice.

### ATH 263 • Theory of Football. Two sem hours

Lecture course covering the basic fundamentals and styles of offensive and defensive football.

### ATH 265 • Theory of Baseball. Two sem hours

A course designed to provide the prospective teacher and coach with knowledge of the fundamental skills and strategy of baseball.

### ATH 267 • Theory of Basketball. Two sem hours

Lecture course covering the basic fundamentals and styles of offensive and defensive basketball.

### ATH 269 • Theory of Track and Field. Two sem hours

A course designed to provide the prospective teacher and coach with the fundamental techniques for coaching and administering programs of track and field.

### ATH 315 • Psychology of Coaching. Two sem hours

A course of study which provides some practical guidelines to help the prospective coach apply more effectively behavioral science principles to performance aspects of sport.

### ATH 316 • Foundations of Coaching. Two sem hours

A course designed to provide the prospective coach with practical and scientific information necessary for the implementation of a successful coaching program.

### ATH 317 • Theory of Coaching Individual Sports for Women. Two sem hours

includes the following activities: badminton, golf, tennis, archery. It is designed to coordinate, correlate and supplement the skills and information already conveyed in activity classes through the following methods: place of individual sports in the school intramural and inter-school programs, lesson plans, unit plans, discussion of 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. Two sem hours

Designed to coordinate, correlate and supplement skills and coaching techniques introduced in activity courses. Field sports, volleyball and basketball are covered. Prereq: REP 235 Softball, PEP 152 Track and Field for Women.

## ACTIVITY COURSES

### FOR GENERAL STUDENTS

New courses are identified with a bullet •.

The physical education activity requirement is explained on page 34 in this catalog. Additional information may be obtained in the department office in Room 235 Warner Gymnasium. Activity and studio classes intended primarily for majors and minors are listed in the physical education major on page 205 and the dance major on page 203.

Students are required to wear apparel appropriate to safe and efficient participation in the particular course activity. It is also required that students enrolled in these courses pay a locker and towel fee. This fee is payable at the Cashier's Office, Briggs 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 which is prescribed by the course title; for example, 119 Women's Gymnastics and 122 Men's Gymnastics.

	Semester Hours
PEG 101 Weight Control and Fitness	2
PEG 103 Couple, Square, and Ballroom Dancing	1
PEG 108 Basketball	1
PEG 109 Jishukan Jujitsu	1
PEG 111 Volleyball	1
PEG 117 Synchronized Swimming	1
PEG 119 Women's Gymnastics	1
PEG 121 Orienteering	1
PEG 122 Men's Gymnastics I	1
PEG 126 Conditioning Activities	1
PEG 128 Judo	1
PEG 130 Assault and Rape Prevention	1
PEG 140 Marching Band	1
PEG 141 Adapted Activities	1
PEG 143 Fencing	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
PEG 152 Sailing	1
PEG 153 Swimming	1
PEG 155 Jazz I	1
PEG 156 Canoeing	1
PEG 158 Folk Dancing	1
PEG 159 Tap Dancing	1
PEG 160 Ballet	1
PEG 161 Modern Dance	1

### 200 Level - Intermediate and Advanced Courses

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 which are governed by University eligibility rules and regulations.

The credit for each course is one semester hour, unless indicated.

**Intermediate**

- PEG 209 Intermediate Jishukan Jujitsu
- PEG 219 Intermediate Apparatus
- PEG 221 Cycling
- PEG 222 Men's Gymnastics II
- PEG 224 Jogging
- PEG 225 Intermediate Golf
- PEG 228 Intermediate Badminton
- PEG 243 Intermediate Fencing
- PEG 244 Recreational Shooting and Hunting Safety
- PEG 248 Intermediate Tennis
- PEG 253 Intermediate Swimming
- PEG 255 Jazz II
- PEG 258 Intermediate Folk Dancing
- PEG 260 Intermediate Ballet
- PEG 261 Intermediate Modern Dance
- PEG 316 Intermediate Tumbling and Floor Exercise - Women

**Advanced**

- PEG 220 Varsity Rifle Team
- PEG 230 Varsity Cross Country
- PEG 231 Varsity Football
- PEG 232 Varsity Basketball
- PEG 233 Varsity Swimming
- PEG 234 Varsity Gymnastics
- PEG 235 Varsity Wrestling
- PEG 236 Varsity Track
- PEG 237 Varsity Baseball
- PEG 238 Varsity Golf
- PEG 239 Varsity Tennis
- PEG 240 Varsity Volleyball
- PEG 241 Varsity Field Hockey
- PEG 242 Varsity Softball
- PEG 245 Precision Drill Team
- PEG 309 Jishukan Jujitsu - Sankyu Brown Belt
- PEG 321 Backpacking
- PEG 348 Basic Scuba Diving (Two sem hours)
- PEG 353 Lifesaving (Two sem hours)
- PEG 453 Water Safety Instructor - ARC (Two sem hours)

## SPORTS SKILLS COURSE REQUIREMENT FOR THE PHYSICAL EDUCATION MAJOR

New courses are identified with a bullet •.

The sports skills course requirement for the physical education major is designed to provide the student both with a general background in the skills area and the opportunity to specialize in a specific interest area.

Major students must complete a minimum of 15 credit hours in skills courses. Skills courses have been categorized into six different groups. Courses are required in each group as indicated. 2-4 hours are elective from the courses listed. In addition, one hour may be elected from any skills course offered in the department.

**Group A - Team Sports:** A minimum of two courses are required. Two-semester hours

Choice of two of the following (of which one must be at the intermediate level):

- PEP 235 Softball
- PEG 111 Volleyball or PEP 236 Intermediate Volleyball
- PEG 108 Basketball or PEP 237 Intermediate Basketball
- PEP 239 Soccer

Additional courses approved as electives:

- PEG 152 Track and Field
- PEG 234 Field Hockey
- PEG 139 Flag Football and Speed-a-way
- PEG 238 International and Ethnic Games

**Group B - Individual Sports:** A minimum of two courses are required. Two-three semester hours

Choice of one of the following:

- PEG 101 Weight Control and Fitness (Two semester hours)
- PEG 126 Conditioning Activities
- PEG 224 Jogging
- PEG 152 Track and Field

Choice of one of the following:

- PEG 148 Tennis or PEG 248 Intermediate Tennis
- PEG 149 Badminton or PEG 228 Intermediate Badminton

\*Additional courses approved as electives:

- PEG 123 Wrestling
- PEG 143 Fencing
- PEG 147 Archery
- PEG 150 Golf
- PEG 151 Bowling
- PEG 221 Cycling
- PEG 225 Intermediate Golf
- PEG 243 Intermediate Fencing

**Group C - Gymnastics:** A minimum of two courses are required. Two semester hours

Choice of two of the following:

- PEG 119 Women's Gymnastics
- PEG 122 Men's Gymnastics I
- PEG 216 Teaching Women's Gymnastics
- PEG 222 Men's Gymnastics II
- PEG 219 Women's Intermediate Apparatus
- PEG 316 Intermediate Tumbling and Floor Exercise for Women
- PEG 315 Teaching Gymnastics
- PEG 415 Judging and Coaching Men's Gymnastics

**Group D - Aquatics:** A minimum of one course(s) is required. One-two semester hours

Choice of one of the following:

- PEG 153 Beginning Swimming
- PEG 253 Intermediate Swimming
- PEG 129 Aquatics
- PEG 117 Synchronized Swimming
- PEG 254 Diving and Competitive Swimming
- PEG 353 Lifesaving (Two semester hours)
- PEG 453 Water Safety Instructors Course (Two semester hours)
- PEG 348 SCUBA Diving (Two semester hours)

\*Electives may be taken from the above courses.

**Group E - Dance:** A minimum of one course is required. One semester hour

Choice of one of the following:

- PEG 103 Couple, Square, and Ballroom Dancing
- PEG 132 Beginning Modern Dance Methods
- PEG 116 Beginning Modern Dance Techniques
- PEG 120 Intermediate Modern Dance Technique
- PEG 150 Advanced Techniques and Composition of Modern Dance

\*Service Teaching courses (PEG 231, 233, 331 and 333) may be used as electives in fulfilling the requirement with a limit of one per group up to a maximum of two courses. Permission must be granted from the instructor with whom service teaching will be completed.

- PEG 155 Jazz I
- PEG 159 Tap Dancing
- PEG 161 Modern Dance
- PEG 158 Folk Dance
- PEP 224 Folk Dance Methods
- PEG 255 Jazz II
- PEG 160 Ballet
- PEG 260 Intermediate Ballet
- PEG 258 Intermediate Folk Dance

## CURRICULUM FOR TEACHERS OF DANCE

### Bachelor of Science Degree

#### \*Elementary or Secondary Provisional Certificate

Department Head, Dr. Patric L. Cavanaugh

**Group F - Elementary:** P 200 Activities for the Elementary Grades is required of all students and carries two hours of credit. Two-three sem hours

In addition, students seeking K-12 endorsement must take one of the following courses: (For these students the minimum hours required would be three.) Three sem hours

- PEP 301 Early Elementary Physical Education
- PEP 302 Later Elementary Physical Education
- Elective:
- PEP 110 Fundamentals of Movement

The dance major is a four-year curriculum designed for the student who wishes to pursue a career in dance. The program has dance education as its major emphasis. However, it is designed with the flexibility for students to receive a broad-based experience, serving as foundation for other dance oriented careers such as being performers, dance therapists and arts council staff members. These students are advised to seek a minor which would enhance the major, such as drama, music, history, journalism, business or psychology.

Performance experiences form a vital role in the major allowing the student to objectify knowledge gained in the studio and classroom.

Students planning admission to the dance major should officially enroll in the program at the Academic Services Center and complete the following:

1. An application at the Dance Office, 108 Warner Gymnasium.
2. A technical assessment in modern dance and ballet.
3. A course of study planned with a dance adviser.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed. In some cases, courses taken to meet Basic Studies requirements may also meet curriculum, major or minor requirements.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

## COACHING MINOR

(Non-Teaching)

Adviser Chairperson, Peggy Steig  
(487-0091)

This minor is designed for those persons intending to pursue coaching as a full or part-time activity. Since it is not recognized as a Michigan Department of Education Certified minor, it is not to be considered a teaching minor.

	Semester Hours
<b>Required Courses</b> .....	11
PED 200 Anatomy and Physiology .....	5
PED 204 Kinesiology .....	2
PED 312 Athletic Training, and Physical Therapy .....	2
ATH 316 Foundations of Coaching .....	2
<b>GROUP A One of the following:</b> .....	2-3
PED 300 Physiology of Exercise .....	3
PED 310 Physiology of Human Performance ...	2
<b>GROUP B One of the following:</b> .....	2
PED 305 Practical Concepts of Conditioning ...	2
ATH 315 Psychology of Coaching .....	2
<b>Electives from GROUP C</b> .....	5-4
ATH 261 Officiating - Men's Sports .....	2
ATH 262 Officiating - Women's Sports .....	2
ATH 263 Theory of Football .....	2
ATH 264 Coaching Individual Sports .....	2
ATH 265 Theory of Baseball .....	2
ATH 266 Coaching of Team Sports - Women ..	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 233 or 333 Service Teaching in Coaching ..	1
RED Electives from Group A and B .....	2-4

*\*If an elementary provisional certificate is desired, consult with the director of Academic Records and Certification or director of Academic Advising regarding special requirements. In Group II, MTH 101 Functional Math is recommended for those seeking elementary certification.*

*The student will complete as a minimum major in dance as listed above and one minor of 20 semester hours or a group minor of 24 semester hours in a subject field which the student expects to teach.*

	Semester Hours
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
Group II Science and Mathematics .....	10-12
PSY 101 General Psychology .....	3
BIO 105 Biology and the Human Species .....	4
A second laboratory science course or a course in mathematics.	
Group III Social Sciences .....	9-12
One course in American Government selected from:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
One course in history.	
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
Humanities .....	12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
DAN 106 Introduction to the Performing Arts ..	3
Group IV Education* .....	21
EDP 302 Educational Psychology .....	3
CUR 303 Principles of Teaching .....	3
DAN 354 Methods and Materials in the Teaching of Dance .....	3
CUR 418 Seminar in Education .....	2
PED 440 Tests and Measurements in Physical Education .....	2
EDU 492 Student Teaching .....	8
Group VII Physical Education and Health .....	45
DAN 107 Rhythmic Analysis and Dance Accompaniment .....	3
PED 200 Anatomy and Physiology .....	5
DAN 245 Elements of Dance Composition .....	3
DAN 255 Dance Production .....	3
DAN 350 Dance History .....	3
DAN 355 Labanotation .....	3
DAN 450 Advanced Dance Composition .....	4
DAN 455 Seminar in Dance .....	2
Electives to be chosen from related areas with dance division chairperson's approval .....	4
Dance major studio activity courses .....	15
PEG 103 Couple, Square, Ballroom Dance .....	1
PEG 116 Modern Dance I .....	1
PEG 120 Modern Dance II .....	1
PEG 224 Folk Dance .....	1
PEG 132 Modern Dance III .....	1
PEG 131 Service Teaching .....	1
PEG 231 Service Teaching .....	1
PEG 150 Modern Dance IV .....	1
PEG 160 Ballet .....	1
PEG 260 Intermediate Ballet .....	1
PEG 320 or 322 Dance Workshop .....	1
PEG 422 or 423 Dance Workshop .....	1
*Approved electives in activity courses .....	3
Free electives .....	30-24
Total .....	135

\*These courses are optional, required only if desiring a teaching certificate.

**Dance Minor (30 semester hours)**

Students planning admission to the dance minor should complete the following:

1. An application at the Dance Office, 108 Warner Gymnasium
2. A technical assessment in modern dance and ballet
3. A course of study planned with a dance adviser.

**Theory Courses**

	Semester Hours
Required Courses .....	12
DAN 106 Introduction to the Performing Arts ..	3
DAN 107 Rhythmic Analysis and Dance Accompaniment .....	3
DAN 245 Elements of Dance Composition .....	3
DAN 350 Dance History .....	3
Two of the following courses: .....	5-7
DAN 255 Dance Production .....	3
DAN 355 Labanotation .....	3
DAN 450 Advanced Dance Composition .....	4
(with dance division approval)	
DAN 455 Dance Seminar .....	2
Elective(s) to be chosen from dance or related areas with dance division approval .....	3-1

**Studio Courses**

PEP 224 Folk Dance .....	1
*Three of the following courses: .....	3
PEG 116 Modern Dance I .....	1
PEG 120 Modern Dance II .....	1
PEG 132 Modern Dance III .....	1
PEG 150 Modern Dance IV .....	1
*One of the following courses: .....	1
PEG 160 Ballet .....	1
PEG 260 Intermediate Ballet .....	1
Electives to be chosen from other dance studio courses .....	5

**HEALTH**

Adviser Chairperson, **Myrna Yeakle**  
(487-1344)

Health, Physical Education, Recreation and Dance Department

The health education minor is designed to provide preparation for teaching health in the schools. It is a good minor to combine with all majors in education. Though it is planned for persons who are intending to teach, this should not be considered a restriction for those who are preparing to work in health-related fields. This minor will provide an excellent background for graduate programs in the school health and community health disciplines.

**Minor (20 semester hours)**

	Semester Hours
Required courses:	
<b>Biological Science</b>	
HED 350 Scientific Foundations of Health Education .....	3
(Fall Term Only)	
<b>Behavioral Science</b>	
SOC 105 Introductory Sociology .....	3
SOC 204 Marriage and Family .....	3
PSY 321 Child Psychology or	
322 Psychology of Adolescence .....	3

<b>Professional Health Education</b>	
HED 380 Psychosocial Concepts of Health . . . . .	2
(Winter Term Only)	
*HED 320 Health Education for Elementary Grades or	
330 Health Work in the Schools . . . . .	2
HED 430 Community Health Resources . . . . .	2
(Fall Term Only)	
Electives as approved by health education advisers.	

Group II Science and Mathematics . . . . .	10-12
PSY 101 General Psychology . . . . .	3
BIO 105 Biology and the Human Species . . . . .	4
A second laboratory science course or a course in mathematics.	
Group III Social Sciences . . . . .	9-12
One course in American government selected from:	
PLS 112 American Government or	
PLS 202 State and Local Government . . . . .	3
One course in history.	
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
Humanities . . . . .	11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts.	
Group IV Education . . . . .	21
EDP 302 Educational Psychology . . . . .	3
CUR 303 Principles of Teaching . . . . .	3
PED 367 Methods and Materials in Physical Education . . . . .	2
CUR 418 Seminar in Education . . . . .	2
PED 440 Tests and Measurements in Physical Education . . . . .	2
EDU 492 Student Teaching . . . . .	8
Group VII Physical Education and Health . . . . .	45
PED 200 Anatomy and Physiology . . . . .	5
PED 204 Kinesiology . . . . .	2
PED 240 History and Philosophy of Physical Education . . . . .	2
PED 300 Physiology of Exercise . . . . .	3
PED 312 Athletic Training and Physio-Therapy . . . . .	2
PED 334 Adapted Physical Education . . . . .	2
Approved electives (must relate to the area of Physical Education: see adviser for suggested courses) . . . . .	14

## CURRICULUM FOR TEACHERS OF PHYSICAL EDUCATION

### Bachelor of Science Degree

#### \*Elementary or Secondary Provisional Certificate

Adviser Chairperson, **Peggy Steig**  
(487-0091)

Health, Physical Education, Recreation and Dance Department

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. The particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed. In some cases, courses taken to meet Basic Studies requirements may also meet curriculum, major, or minor requirements.

The student will complete as a minimum: a major in physical education as listed above and one minor of 20 semester hours or a group minor of 24 semester hours in a subject field which the student expects to teach.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

A student may wish to select a concentration area such as:  
Concentration in Coaching (14 hours)

Select two courses from the following:

ATH 305 Psychology of Coaching . . . . .	2
PED 310 Human Performance . . . . .	2
ATH 315 Concepts of Conditioning . . . . .	3
ATH 405 Women in Sport . . . . .	3

Select three courses from the following:

ATH 261 Techniques of Officiating Men's Sports	2
ATH 262 Techniques of Officiating Women's Sports	2
ATH 263 Theory of Football	2
ATH 317 Theory of Coaching Individual Sports for Women	2
ATH 265 Theory of Baseball	2
ATH 318 Theory of Coaching and Teaching Women's Team Sports	2
ATH 267 Theory of Basketball	2
ATH 269 Theory of Track and Field	2

	<b>Semester Hours</b>
Group I Language . . . . .	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	

\*Students may not take both HED 320 and HED 330.

\*If an elementary provisional certificate is desired consult with the Director of Academic Records and Certification or director of the Academic Services Center regarding special requirements. In Group II, MTH 101 Functional Math is recommended for those seeking elementary certification.

Remaining elective hours from any of the above courses

Physical education major activity courses (see below)	15
Free electives . . . . .	31=24
<b>Total</b> . . . . .	<b>135</b>

Utilizing free elective hours and any appropriate basic studies courses, students on this curriculum must complete a teaching minor of 20-24 hours appropriate for the level of their teaching certificate, in order to meet graduation requirements.

### Physical Education Minor

This program is intended for students interested in a teaching minor for the Secondary Teachers Certificate.

(24 semester hours)

	Semester Hours
Required courses:	24
PED 200 Anatomy and Physiology .....	5
PED 204 Kinesiology .....	2
PED 300 Physiology of Exercise or PED 310 Human Performance .....	3-2
HED 210 First Aid, or ATH 312 Athletic Training and Physiotherapy .....	2
PED 334 Adapted Physical Education .....	2
PED 367 Methods & Materials in Physical Educa- tion .....	3
Elective .....	2
Professional Physical Education Activity Courses. (To be elected with permission of de- partment adviser) .....	5-6

### PHYSICAL EDUCATION MINOR FOR SPECIAL EDUCATION MAJORS

This is a teaching minor that is limited to students who are majoring in special education.

(20 semester hours)

	Semester Hours
Required courses .....	9-14
PED 200 Anatomy and Physiology .....	5
PED 204 Kinesiology .....	2
PED 257 Physical Education for the Elementary Classroom Teacher .....	2
PED 281 Motor Development .....	3
And	
Two courses from the following:	
PED 282 Perceptual Motor Training .....	1
PED 384 Physical Education for Visual and Hear- ing Impaired .....	1
PED 386 Physical Education for the Mentally Im- paired .....	1
Suggested Electives .....	6-11
HED 210 Standard American Red Cross First Aid .....	2
PED 240 History and Philosophy of Physical Education .....	2
PED 385 Special Olympics .....	3
PED 481 Aquatics for the Handicapped .....	2
PED 300 Physiology of Exercise .....	2
PED 310 Human Performance .....	2
DAN 456 Creative Dance for Children .....	2
REC 480 Recreation Therapy .....	2
PED 282, 384, 386 may also be elected	
P.O.H.I. majors would be exempt from 200 Anatomy .....	

## CURRICULUM FOR DIRECTORS OF RECREATION

### Bachelor of Science Degree

Adviser Chairman, **Ronald J. Saunders**  
(487-0092)

Health, Physical Education, Recreation and  
Dance Department

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed. In some cases, courses taken to meet Basic Studies requirements may also meet curriculum, major, or minor requirements.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	Semester Hours
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library sci- ence (Group I).	
Group II Science and Mathematics .....	10-12
PSY 101 General Psychology .....	3
One laboratory science course.	
A second laboratory science course or a course in mathematics.	
Group III Social Sciences .....	12
One course in American Government selected from:	
PLS 112 American Government or PLS 202 State and Local Government .....	3
One course in history .....	3
SOC 105 Introductory Sociology .....	3
SFD 354 Juvenile Delinquency .....	3
Humanities .....	12
Two courses in literature in the English Depart- ment, two intermediate foreign language courses, or two advanced foreign language lit- erature courses.	
One course in philosophy or religion.	
One of the following .....	3
One course in art, music, or dramatic arts.	
Group IV Education** .....	21
EDP 302 Educational Psychology .....	3

\*\*Students wishing to pursue a career in Community Education are advised to seek a teaching certificate. Students electing this option must complete student teaching in physical education and must meet the prerequisites for placement.

# SPECIAL EDUCATION

Department Head: Norman J. Niesen

Professors: Angelo A. Angelocci, C. Wayne Fulton, Henry L. Gottwald, Nora Martin, Gary B. Navarre, James R. Palasek, Dale L. Rice, Mary S. Ufford, Frank J. Wawrzaszek

Associate Professors: Thelma P. Albritton, George J. Barach, Michael Beebe, Joe E. Coyner, Carl E. Garber, Lawrence F. Geffen, Joseph Gonzalez, Marylyn E. Lake, Sandra McClennen, David E. Palmer, Kathleen S. Quinn, Marvin L. Skore, Mary S. Ufford

Assistant Professors: Roberta Anderson, Lawrence M. Bemish, George E. Caputo, Marjorie K. Chamberlain, Gayle Nash, Margaret J. Smith, Beth VanVoorhees, Vega Wimmer

Administrative Associates: Martha Guenin, Nancy Halhuber

Clinical Supervisor: Claudia Mueller

The Department of Special Education provides courses which prepare teachers to educate the handicapped. This specialized preparation is in addition to meeting the basic requirements for certification for elementary or secondary education. Currently the department prepares teachers at the undergraduate level in the following areas of exceptionality:

- a. Hearing Impaired
- b. Emotionally Impaired
- c. Mentally Impaired
- d. Physically and Otherwise Health Impaired
- e. Visually Impaired

A five-year program culminating in a master's degree, is offered in the area of the Speech and Language Impaired. Students should enroll early in their undergraduate program to meet all requirements for the curriculum within a five year time period. Also, a single introductory course is provided in Learning Disabilities at the undergraduate level. Further course work and endorsement as a teacher of the Learning Disabled is restricted to the graduate level of study. Admission to the Learning Disabilities program at the graduate level has a prerequisite of a teaching endorsement in special education. For further information, please contact the Special Education Graduate Office, Room 230 Rackham.

## Major

Students planning to major in one of the curricula preparing teachers for a specific impairment area, are directed to pages 212 and 213.

Each of these curricula lead to the degree of Bachelor of Arts or Bachelor of Science and the provisional certificate. Beginning students who wish to major in special education should follow the curriculum outline closely in their area of interest. Students entering the department with advanced credits should confer with the head of the department or an assigned department adviser before registering.

Admission to the University does not guarantee admission to the department. Students planning to major in a specific curriculum must meet admission requirements established by the faculty of that program area.

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. The sequence of courses should be planned in advance and have the written approval of the head of the Department of Special Education.

This planned program in a sequence of courses in special education will provide background on handicapping conditions but will not offer sufficient specialized work to obtain state approval to teach impaired children. This program option has been designed primarily for students majoring in home economics, physical education or recreation, industrial education and music education.



CUR 303 Principles of Teaching .....	3
PED 367 Methods and Materials in Physical Education .....	3
CUR 418 Seminar in Education .....	2
EDU 496 Student Teaching in Physical Education .....	8
Elective .....	2
Group VI Practical Arts .....	6
IE 152 Arts and Crafts .....	3
A general course in business .....	3
Group VII Physical Education, Health and Recreation .....	42
DAN 106 Introduction to the Performing Arts ..	3
HED 120 Healthful Living .....	3
HED 210 American Standard Red Cross .....	2
REC 270 Organization and Administration of Community Recreation .....	3
REC 280 Camping .....	2
REC 370 Youth Organizations .....	2
REC 380 Community Recreation Leadership .....	3
REC 489 Field Work in Recreation .....	4
(for those not on the education curriculum)	
REC 480 Recreation Therapy .....	2
Electives .....	6
Physical Education Activity courses .....	12

Recreation majors must take three service teaching courses (PEP 231, PEP 233, and PEP 343), but may select the rest from any activity class for majors or any coed class for general students.

Electives .....	21-19
Total .....	132

Recreation encompasses careers in planning and management in public and private agencies. There are primarily three emphasis areas: recreation therapy, recreation administration and community education.\*\*

## Recreation Minor

	Semester Hours
Required courses .....	27
REC 270 Organization and Administration of Community Recreation .....	3
REC 280 Camping .....	2
REC 380 Community Recreation Leadership .....	3
REC 480 Recreation Therapy .....	2
Electives .....	10
Physical Education Activity Courses: .....	7
PEP 231 or PEP 233 Service Teaching .....	1
Major or coed general elective classes .....	6

\*Students wishing to pursue a career in Community Education are advised to seek a teaching certificate. Students electing this option must complete student teaching in physical education and must meet the prerequisites for placement.

## Affiliations

The department provides and maintains close affiliation with public schools, institutions, hospitals, community agencies and clinics. These provide students with a wide variety of opportunities to observe, study, participate and work directly with the handicapped under supervision. Some of the excellent and unique facilities, programs and services are the following:

### Speech and Hearing Clinic:

The Speech and Hearing Clinic is maintained as part of the program on campus in the Department of Special Education. This program provides clinical preparation for majors in speech pathology, and in addition, provides for observations for other students in the special education program. Clinical services are available to college students and to children and adults from the surrounding areas in the out-patient clinic.

In addition to clinical speech and language evaluations and therapy, complete audiological services are also provided. These services include diagnostic audiology, hearing aid evaluations 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.

### Infant Management Program for the Hearing Impaired:

A program is available for the guidance of parents of hearing impaired children. The purpose of the program is to enable parents to help their child to attain language development during the formative years.

Parents have an opportunity to learn how they might help their child develop auditory/speech/language skills. Time is given to the observation of staff members working with infants, and the parents are able to discuss problems concerning their child.

## Specialized Facilities:

Visits, observations and study will be provided in the following specialized programs:

- Ann Arbor Public Schools
- Durant/Turn Mott School, Flint
- Wayne-Westland Schools
- Ypsilanti Public Schools
- Mott Children's Hospital School, Ann Arbor
- Ypsilanti State Hospital, Yorkwoods Center
- Hawthorn Center, Northville
- Children's Orthogenic Center, Detroit
- Northville Residential Treatment Center
- Redford Union Day Treatment Program
- Michigan School for the Blind at Lansing
- Monroe County Program for the Hearing Impaired, Ida
- Detroit Day School for the Deaf
- Redford Union Program for Hearing Impaired

## GRADUATE STUDY

The Special Education Department offers graduate work leading to the master's degree in special education and the specialist's degrees in school psychology and special education. For descriptions of graduate courses and programs in the Special Education Department, please consult the Graduate Catalog.

## GENERAL SPECIAL EDUCATION

### COURSES

New courses are identified with a bullet •.

#### SGN 251 Education of Exceptional Children.

Two sem hours

A consideration of the problems connected with the education of the non-typical child; the visually impaired, the deaf, the crippled, speech defective, mentally impaired, gifted, socially maladjusted and educationally disadvantaged. Principles and methods of differentiation, by means of which the schools may be enabled to meet the needs of every child, will be discussed.

#### SGN 390 Measurement and Diagnosis in Special Education.

Three sem hours

Psychological evaluation and assessment, the role of tests in the assessment of intellectual capacity, educability, emotional adjustment, visual and auditory limitations.

Prereq: SGN 251 Education of Exceptional Children and junior or senior standing.

#### SGN 429 Educational Programs and Classroom

Management for Exceptional Children. Four sem hours

Emphasis will be given to the assessment of basic learning skills and academic levels of functioning, based on the use and results of formal tests, criterion referenced tests and formal data gathering instruments. Additional emphasis will be placed on the development of appropriate educational program goals and the selection of materials, methods and techniques useful in meeting these goals. Various behavioral management approaches will be included as they relate to overall educational goals and programming.

Prereq: SMI 350 Mental Deficiency.

#### SGN 477, 478, 479 Special Topics. One, two, three sem hours

A course which can be offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations.

#### SGN 497, 498, 499 Independent Study in Special Education.

One, two, three sem hours

Advanced study on an individual basis in areas in which the department does not offer a formal course.

Prereq: 3.0 grade point average and senior standing and permission of the department.

## EMOTIONALLY IMPAIRED

### COURSES

New courses are identified with a bullet •.

#### SEI 240 Pre-Clinical Experiences in Special Education.

Two sem hours

These experiences will provide the student with an opportunity to work with impaired children, helping students to understand these children and also enabling them to evaluate their own personal qualifications for working with children in their chosen field. Evaluations of the student's performance will be obtained from a supervising person. Majors in the area of the emotionally impaired will complete 150 hours of experience before the end of their junior year, 10 hours of which should be completed as a freshman. See an academic adviser for further information.

#### SEI 301 Emotionally Impaired Children. Four sem hours

Dynamics of individual growth and behavior, theories of emotional disturbance in children, illustrated by case materials.

Prereq: PSY 360 Abnormal Psychology.



**SEI 401 Methods and Curriculum for the Emotionally Impaired.** Two sem hours  
Curriculum materials, methods and techniques for educating the emotionally impaired child are explored.  
Prereq: SEI 301 Emotionally Impaired Children and senior standing.

**SEI 402 Programs for Emotionally Impaired Children.** Two sem hours  
Covers program variations and their adaptations for the education of emotionally disturbed children. The focus is on the theoretical and philosophical foundations of programs and some attention is given to behavior management techniques, teaching role and professional relationships within given programs.  
Prereq: SEI 301 Emotionally Impaired Children and senior standing.

**SEI 448 Seminar in Emotionally Impaired.** Two sem hours

## LEARNING DISABILITIES COURSE

New courses are identified with a bullet •

**SLD 468 Education of Children with Learning Disabilities.** Two sem hours  
A study of the educational and psychological problems of children with neurological and perceptual defects. Preparation and evaluation of materials.  
Prereq: SGN 251 Education of Exceptional Children and senior standing.

## MENTALLY IMPAIRED COURSES

New courses are identified with a bullet •

**SMI 240 Pre-Clinical Experiences in Special Education.** Two sem hours  
These experiences will provide the student with an opportunity to work with impaired children, helping students to understand these children and also enabling them to evaluate their own personal qualifications for working with children in their chosen field. Evaluations of the student's performance will be obtained from a supervising person. Majors in the area of the mentally impaired with complete 120 hours of experience before the end of their junior year; 10 hours of which should be completed as a freshman. See an academic adviser for further information.

**SMI 350 Mental Deficiency.** Two sem hours  
A study of the etiology and incidence of mental deficiency, the historical and current philosophy, preventive measures and the educational facilities. Opportunities are provided for observation and clinical studies.  
Prereq: PSY 101 General Psychology and SGN 251 Education of Exceptional Children.

**SMI 426 The Trainable and Severely Retarded Child.** Three sem hours  
Habilitation and education of the trainable and severely retarded child. Philosophy, classroom management, program coordination and evaluation, parent counseling, professional, personnel, legislation, housing, transportation and ancillary services.  
Prereq: SGN 429 Educational Programs and Classroom Management for Exceptional Children. Laboratory required.

**SMI 427 Elementary Education of Mentally Impaired.** Two sem hours  
Emphasis will be placed on development of programs, materials and instruction techniques appropriate to the needs of the young mentally impaired child, zero to twelve years of age. The child's needs in affective, cognitive and psycho-motor domains will be discussed and demonstrated to help to develop greater self-worth.  
Prereq: SGN 429 Educational Programs and Classroom Management for Exceptional Children.

**SMI 428 Secondary Education of Mentally Impaired.** Two sem hours  
The main objectives in this course for secondary educable mentally impaired are to help students recognize their personal worth; become competent employees; and develop into contributing responsible citizens. Emphasis will be placed on the 12 to 25-year-old person.  
Prereq: SGN 429 Educational Programs and Classroom Management for Exceptional Children.

**SMI 444 Seminar in Mentally Impaired.** Two sem hours

## PHYSICALLY IMPAIRED COURSES

New courses are identified with a bullet •

**SPI 240 Pre-Clinical Experiences in Special Education.** Two sem hours  
These experiences will provide the student with an opportunity to work with impaired children, helping students to understand these children and also enabling them to evaluate their own personal qualifications for working with children in their chosen field. Evaluations of the student's performance will be obtained from a supervising person. Majors in the area of the physically impaired will complete 120 hours of experience before the end of their junior year; 10 hours of which should be completed as a freshman. See an academic adviser for further information.

**SPI 310 Developmental Aspects of Teaching Physically Impaired Children.** Five sem hours  
The basic concepts of anatomy, physiology and pathology as related to the types of disability found in an orthopedic classroom. Laboratory periods (two one-hour periods per week) are required and case studies of physically impaired children are made.  
Prereq: SGN 251 Education of Exceptional Children, and SGN 240 Pre-Clinical Experiences in Special Education.

**SPI 412 Applied Aspects of Teaching Physically Impaired Children.** Six sem hours  
(formerly 312)  
To help the student understand the educational and psychological needs of physically impaired children and to learn about the various teaching techniques to meet these needs, a study of the various therapies and services necessary for the rehabilitation of physically impaired children. Laboratory required.  
Prereq: SPI 310 Developmental Aspects of Teaching Physically Impaired Children.

**SPI 446 Seminar in Physically Impaired.** Two sem hours

## SPEECH AND LANGUAGE IMPAIRED COURSES

New courses are identified with a bullet •

### SLI 241 Introduction to Speech Pathology. Two sem hours

An introductory course providing background preparation in the basis of speech and simple phonetics. A study of various types of speech defects. Designed to help classroom teachers and special education teachers understand and correct minor defects and to help them cooperate with the speech pathologist.

### SLI 243 Applied Phonetics. Three sem hours

Introduction to the physiological and acoustic 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.

### SLI 336 Anatomy and Physiology of the Speech and Hearing Mechanisms. Three sem hours

The anatomy and physiology (of normal speech production) and auditory reception are studied in detail. Emphasis is placed on understanding the physical processes of speaking and listening as dynamic, interdependent processes.

### SLI 337 Language Acquisition. Two sem hours

The development of speech, language and hearing from birth with emphasis on these areas within the total concept of child development. The normal functions and uses of language in children and adults will be considered as a basis for understanding the effects of speech, language and hearing problems of the individual.

### SLI 338 Speech Pathology. Two sem hours

Designed to provide the student with a detailed knowledge of the nature, courses and development of speech disorders. A study will be made of the literature regarding language, articulatory defects, voice problems, stuttering, cleft palate, cerebral palsy and hearing disorders.

Prereq: SLI 243 Applied Phonetics, SLI 336 Anatomy and Physiology of the Speech and Hearing Mechanisms, and SLI 337 Language Acquisition.

### SLI 339 Speech Evaluation. Two sem hours

Supervised clinical experience in evaluating speech disorders. Theory, observation and practice in obtaining a case history; testing articulation; conducting a speech mechanism exam; preliminary evaluation of various disorders.

Prereq: Concurrent enrollment in SLI 338 Speech Pathology.

### SLI 340 Speech Pathology Methods I. Three sem hours

Deals with diagnosis and treatment of functional articulation problems, including the articulation deficits associated with the cleft palate, cerebral palsy, and hearing impairments.

Prereq: SLI 338 Speech Pathology.

### SLI 341 Directed Observation in Speech Pathology.

One sem hour

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 340 Speech Pathology Methods I.

### SLI 342 Speech Pathology Methods II. Two sem hours

Deals with diagnosis and treatment of language problems, including the language deficits associated with cleft palate, cerebral palsy, and hearing impairments.

Prereq: SLI 338 Speech Pathology.

### SLI 343 Clinical Practice in Speech Pathology I.

Two sem hours

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 are given special emphasis.

Prereq: SLI 341 Directed Observation in Speech Pathology and SLI 340 Speech Pathology Methods I. Department permission.

### SLI 344 Clinical Practice in Speech Pathology II.

Two sem hours

A minimum of 60 clock hours of supervised clinical experience with speech disorders associated with organic impairment. Emphasis is given to problems of children with cerebral palsy, cleft palate, hearing losses, mental impairments and language.

Prereq: SLI 343 Clinical Practice in Speech Pathology I. Concurrent enrollment in SLI 342 Speech Pathology Methods II.

### SLI 345 Clinical Practice in Speech Pathology III.

Two sem hours

A minimum of 60 clock hours of supervised clinical experience with a variety of speech and hearing disorders.

Prereq: SLI 343 and 344 Clinical Practice in Speech Pathology I and II.

### SLI 416 Experimental Phonetics I. Three sem hours

Theoretical consideration of speech as motor behavior and as an acoustical phenomenon. Physiological and acoustical investigations of speech and voice. Principles and methods of measuring speech action and acoustical phenomena.

Prereq: Senior standing.

### SLI 440 Seminar in Speech Pathology. Two sem hours

### SLI 452 Voice. Three sem hours

A study of the etiology, diagnosis and treatment of functional and organic voice disorders. Defects of loudness, pitch and quality will be considered.

Prereq: SLI 340 Speech Pathology Methods I.

### SLI 454 Stuttering. Three sem hours

Causation, symptomatology and remedial procedures of stuttering; specific therapy procedures in the clinic, the school and the home.

Prereq: SLI 340 Speech Pathology Methods I.

## DEAF AND HEARING IMPAIRED COURSES

New courses are identified with a bullet •

### SHI 228 Survey of Education and Guidance of the Hearing Impaired. Two sem hours

Designed to cover the history of the education of the deaf including an overview of the current educational programming. The second half of the course deals with problems of parent counseling, social and psychological adjustment of the deaf, and vocational training and habilitation.

### SHI 387 Introductory Practicum With the Hearing Impaired I. One sem hour

Thirty clock hours supervised observation and work with deaf and hard of hearing children. Experience is designed to permit the student and University to examine the individual's qualifications for working with the deaf.

Coreq: SHI 391 Language for the Hearing Impaired.

**SHI 391 Language for the Hearing Impaired.****Four sem hours**

Examines the effects of a hearing loss on language development, the structure of English and principles of grammar, techniques of developing language in the young deaf child and a detailed study of a structured language teaching system with emphasis on practical use at all levels. Must be taken concurrently with SHI 395 Speech for the Hearing Impaired I.

**SHI 392 Introduction to Audiology.****Two sem hours**

The acoustic characteristics of speech. Medical and surgical treatment of pathologies of the ear. Hearing screening tests, basic audiometric testing procedures and audiometric interpretation.

Prereq: PHY 210 Musical Acoustics.

**SHI 394 Auditory Training and Speechreading for the Hearing Impaired.****Three sem hours**

A study of the avenues of receptive language available to deaf and hard-of-hearing children, the training of residual hearing and the development of speech reading. Includes the use and care of group and individual hearing aids.

Prereq: SHI 392 Introduction to Audiology.

**SHI 395 Speech for the Hearing Impaired I.****Two sem hours**

Speech development of deaf and hard-of-hearing children. Analysis of speech as a motor skill, with presentation of typical problems of speech for the deaf: i.e. breathiness, voice quality, articulation, rhythm, phrasing, accent and fluency. Methods of analyzing and transcribing speech will be emphasized.

**SHI 436 Speech for the Hearing Impaired II.****Two sem hours**

A continuing analysis of speech as a psycho-acoustic-motor skill, intensive analysis of methods of developing speech and of achieving intelligible, connected speech.

Prereq: SHI 395 Speech for the Hearing Impaired I.

**SHI 437 School Subjects for the Hearing Impaired.****Four sem hours**

Principles and methods of teaching reading and school subjects to the deaf. Classroom procedures and materials especially designed for the deaf as well as the adaptation of regular curriculum and materials will be presented.

Prereq: SHI 228 Survey of Education and Guidance of the Hearing Impaired, SHI 391 Language for the Hearing Impaired.

**SHI 442 Seminar in Hearing Impaired.****Two sem hours****SHI 487 Introductory Practicum with the Hearing Impaired II.****One sem hour**

Thirty clock hours supervised observation and work with the deaf and hard of hearing. Both SHI 387 and 487 must be completed prior to Student Teaching with the Hearing Impaired.

Coreq: SHI 436 Speech for the Hearing Impaired II.

**SVI 366 Hygiene and Anatomy of the Eye.****Two sem hours**

Anatomy, physiology and pathology of the organs of vision, refractive errors and principles of correction. Special attention is given to educational implications of visual handicaps in children rather than strictly medical achievements. Work towards interpretation of medical reports to parents, students and other teachers is a behavioral objective of this course.

Prereq: SGN 251 Education of Exceptional Children.

**SVI 368 Mobility Training for the Visually Impaired.****Two sem hours**

A concentration on sensory training, study and development of cane techniques as they apply to mobility for the blind. Introduction to leader dog program. A practicum is included. Offered on the junior, senior and graduate level.

**SVI 369 Community Considerations for the Visually Impaired.****Three sem hours**

Students are given exposure to the lifestyle and needs of persons with visual impairments and will become acquainted with appropriate considerations that the community must take for all levels of physical, emotional and vocational development. Field trips and classroom experiences will acquaint the students with a wide variety of service-oriented facilities for the visually impaired.

Prereq: SGN 251 Education of Exceptional Children.

**SVI 450 Seminar in Visually Impaired.****Two sem hours**

History, nature and structure of the Michigan Public School system. Problems related to integration of the functional units within the system are discussed. Organization of special services as they relate to these units is included. Students are encouraged to discuss their public school internship experiences. Several times during the semester there will be large meetings of all students enrolled in the several sections for the purpose of discussing common topics. Must be taken concurrently with Special Student Teaching. This is a credit/no credit course.

**SVI 464 Methods of Teaching the Blind.****Three sem hours**

A study of the various methods used in educating blind children. The adaptation of these methods to the teaching of elementary and secondary school subjects to blind students. Further emphasis on Nemeth code, Cranmer abacus and other teaching materials and devices.

Prereq: SVI 365 Braille.

**SVI 467 Education of Children with Impaired Vision.****Two sem hours**

Organization and administration of various plans for educating partially sighted children. Adaptation of the various teaching methods and materials to partially sighted children. A comparison of various vision testing methods and devices. Visits to classes for visually impaired children.

Prereq: SVI 366 Hygiene and Anatomy of the Eye.

## VISUALLY IMPAIRED COURSES

New courses are identified by a bullet •

**SVI 365 Braille.****Three sem hours**

Students will work on developing proficiency in reading and writing error-free braille. A portion of the time will be spent studying Nemeth Code, and also the reading of music braille.

Prereq: SGN 251 Education of Exceptional Children, or can be taken concurrently.



## CURRICULUM FOR TEACHERS OF SPECIAL EDUCATION

Mentally Impaired, Emotionally Impaired,  
Physically and otherwise Health Impaired,  
Hearing Impaired, Visually Impaired

### Bachelor of Science Degree

#### Elementary Provisional Certificate

Adviser Chairman, **Norman J. Niesen**  
(487-3300)  
Special Education Department

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major or minor requirements do specify both courses and the number of hours to be completed.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	<b>Semester Hours</b>
<b>Group I Language</b> .....	11-12
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I). (Hearing Impaired majors must elect CEN 223, Introduction to Language (3) or substitute course approved by adviser)	
EIT 207 Introduction to Children's Literature ...	3
<b>Group II Science and Mathematics</b> .....	15
MTH 101 Functional Mathematics .....	3
One laboratory science course .....	4
(Hearing Impaired majors must take PHY 210 Musical Acoustics to satisfy lab science requirement.)	
(Physically impaired majors must take BIO 105 Biology and the Human Species to satisfy lab science requirement.)	
PSY 101 General Psychology .....	3
EDP 206 Mental Hygiene .....	2
PSY 360 Abnormal Psychology .....	3

<b>Group III Social Sciences</b> .....	12
One history course .....	3
SOC 105 Introductory Sociology .....	3
Either of the following:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
*SOC 202 Social Problems .....	3
<b>Humanities</b> .....	9
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in arts, music or dramatic arts (automatically met by Group V courses below).	
<b>Group IV Education</b> .....	30-34
*SGN 251 Education of Exceptional Children ..	2
CUR 303 Principles of Teaching .....	3
CUR 314 Teaching Reading and the Language Arts .....	6
EDP 320 Human Growth and Development ..	4
****EDM 344 Audio-Visual Methods in Teaching	2
MTH 381 Teaching Math K-6 .....	3
*SGN 390 Measurement and Diagnosis in Special Education .....	3
**CUR 418 Seminar in Education .....	2
***EDU Student Teaching .....	8-12
Hearing Impaired majors take 492 and 495 for 12 hours credit. Emotionally Impaired, Visually Impaired, Mentally Impaired, and Physically and Otherwise Health Impaired majors take 495 and 499 for 10 hours credit.	
<b>Group V Fine Arts</b> .....	5
FA 101 Introduction to Art .....	3
MUS 104 Elements of Music .....	2
<b>Group VI Practical Arts</b> .....	5
IE 253 Industrial Technology and the Elementary Teacher .....	3
*IE 354 Experiences in Technology for Children	2
<b>Group VII Physical Education and Health</b> .....	6
*HED 320 Health Education in Public Schools ..	2
Physical education activity courses .....	2
Two semester hours of military science may apply toward this requirement. Courses must include PED 257 Physical Education for the Classroom Teacher.	
<b>Electives (to complete 124 hours)</b> .....	28-23
<b>Total</b> .....	124

### Major Concentration

<b>A. Hearing Impaired</b> .....	26
SHI 228 Survey of Education and Guidance of the Hearing Impaired .....	2
SLI 336 Anatomy and Physiology of the Speech and Hearing Mechanisms .....	3
SHI 387 Introductory Practicum with the Hearing Impaired I .....	1
SHI 391 Language for the Hearing Impaired ..	4
SHI 392 Introduction to Audiology .....	2
SHI 394 Auditory Training and Speechreading for the Hearing Impaired .....	3

\*\*Special Education Seminars 442, 444, 446, 448, 450 may be used for fulfilling this requirement.

\*\*\*A semester of regular student teaching must be completed before doing special student teaching.

\*\*\*\*Not required for hearing impaired majors.

\*Each student must complete a special education major of at least 36 hours consisting of the courses starred (\*) above, plus a major concentration selected from the areas listed.

SHI 395 Speech for the Hearing Impaired I ... 2  
 SHI 436 Speech for the Hearing Impaired II ... 2  
 SHI 437 School Subjects for the Hearing Impaired ... 4  
 SHI 442 Hearing Impaired Seminar ... 2  
 SHI 487 Introductory Practicum with the Hearing Impaired II ... 1

**B. Emotionally Impaired** ... 17

SEI 240 Pre-Clinical Training in Special Education ... 2  
 SLI 241 Introduction to Speech Pathology ... 2  
 SEI 301 Emotionally Impaired Children ... 4  
 SFD 354 Juvenile Delinquency (or approved substitute) ... 3  
 SEI 401 Methods and Curriculum for the Emotionally Impaired ... 2  
 SEI 402 Education and Organization of Programs for the Emotionally Impaired ... 2  
 SEI 448 Seminar in Emotionally Impaired ... 2

**C. Mentally Impaired** ... 18-19

SMI 240 Pre-Clinical Experience ... 2  
 SLI 241 Introduction to Speech Pathology ... 2  
 SMI 350 Mental Deficiency ... 2  
 Two of the following three courses: ... 4-5  
     SMI 426 The Trainable and Severely Retarded Child ... 3  
     SMI 427 Elementary Education of Mentally Impaired ... 2  
     SMI 428 Secondary Education of Mentally Impaired ... 2  
 SGN 429 Educational Programs and Classroom Management for Exceptional Children ... 4  
 SMI 444 Seminar in Mentally Impaired ... 2  
 SLD 468 Learning Disabilities ... 2

**D. Physically and Otherwise Health Impaired** ... 21

SPI 240 Pre-Clinical Training in Special Education ... 2  
 SLI 241 Introduction to Speech Pathology ... 2  
 SPI 310 Developmental Aspects of Teaching Physically Impaired Children (laboratory required) ... 5  
 SMI 350 Mental Deficiency ... 2  
 SPI 412 Applied Aspects of Teaching Physically Impaired Children (lab required) ... 6  
 SPI 446 Seminar in Physically Impaired ... 2  
 SLD 468 Children with Learning Disabilities ... 2

**E. Visually Impaired** ... 19

SLI 241 Introduction to Speech Pathology ... 2  
 SVI 365 Braille ... 3  
 SVI 366 Hygiene and Anatomy of the Eye ... 2  
 SVI 368 Mobility Training for the Visually Impaired ... 2  
 SVI 369 Community Considerations for the Visually Impaired ... 3  
 SVI 450 Seminar in Visually Impaired ... 2  
 SVI 464 Methods of Teaching the Blind ... 3  
 SVI 467 Education of Children with Impaired Vision ... 2

special education with elementary certification, as is the physical education minor for special education majors. The arts group minor is not normally recommended for special education students. Any special education majors should consult with their adviser for permission before embarking on an arts group minor or a "planned program in substantive fields." Such minors as psychology, sociology, economics, chemistry and physics are not acceptable minors for special education with elementary certification.

Specific curricular patterns by semester are provided each student by the College of Education upon enrollment. Students are assigned to a faculty adviser who assists them in planning programs of classes. The normal academic load per semester is 15-16 semester hours, until student teaching is undertaken in the senior year.

**Admission**

Students may declare themselves to be intended majors in the area of Education of the Hearing Impaired at the freshman level; however, all students, freshmen and transfer students, are provisional majors until such time as they have applied to, and been accepted by, the Department of Special Education and the Program in the Area of Education of the Hearing Impaired. Application can be made upon the successful completion of SGN 251, SHI 228, and SLI 341. The program requires a minimum of six semesters in the major area. Students who wish to enter the University program in Education of the Hearing Impaired should be aware that the basic philosophy of the program is oral; however, students are exposed to manual communication during their contacts with hearing-impaired persons.

Students majoring in hearing impaired must follow the sequence of the program established by the staff in this area. Any exceptions to this sequence must receive prior written approval by the staff in hearing impaired. See an adviser in the program for details.

All areas of special education are developing criteria and procedures for admission of students to their majors. Thus all students are initially only declaring an intention as a prospective major, and should consult the department for information on the approved admission procedure.

**CURRICULUM FOR TEACHERS OF THE SPEECH AND LANGUAGE IMPAIRED**

**Bachelor of Science Degree  
 Master of Arts Degree**

**Elementary Provisional Certificate**

Adviser Chairman, **Joseph Gonzalez**  
 (487-4411)  
 Special Education Department

The program for teachers of speech and language impaired is a five-year master's degree program, conforming to the requirements of the American Speech and Hearing Association. Upon completion of 124 credit 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. No certification will be issued until completion of the Master of Arts Degree.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may

(Students in the area of the visually impaired should be able to demonstrate reasonable proficiency in typing.)  
 Students will complete as a minimum a major concentration of 36 semester hours and one minor subject of 20 semester 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. Since special education majors usually get an elementary provisional certificate, the minors listed on page 224 for elementary education are also satisfactory for

Choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed. In some cases, courses taken to meet Basic Studies requirements may also meet curriculum, major, or minor requirements.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

Group I Language	11-12
One course in English composition, or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
ENG 302 Modern English Syntax or	
CEN 223 Introduction to Language	3
LIT 207 Introduction to Children's Literature	3
Group II Science and Mathematics	12
PHY 210 Musical Acoustics (lab required)	4
PSY 101 General Psychology	3
EDP 206 Mental Hygiene	2
PSY 360 Abnormal Psychology	3
Group III Social Sciences	12
One history course	3
SOC 105 Introductory Sociology	3
Either of the following:	3
PLS 112 American Government or	
PLS 202 State and Local Government	
SOC 202 Social Problems	3
Humanities	9
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts (automatically met by Group V courses below).	
Group IV Education	20
SGN 251 Education of Exceptional Children	2
CUR 303 Principles of Teaching	3
CUR 314 Teaching Reading and the Language Arts	6
EDP 320 Human Growth and Development	4
EDM 344 Audio-Visual Methods in Teaching	2
SGN 390 Measurement and Diagnosis in Special Education (or approved substitute)	3
EDU 495 Student Teaching in the Regular Classroom	4
Group V Fine Arts	5
FA 101 Introduction to Art	3
MUS 104 Elements of Music	2
Group VII Physical Education and Health	2
Physical education activity courses	2
Note: Two semester hours of military science may be applied toward this requirement. Courses must include PED 257 Physical Education for the Classroom Teacher.	

Major Concentration	33
SLI 243 Applied Phonetics	2
SLI 336 Anatomy and Physiology of the Speech and Hearing Mechanism (lab required)	3
SLI 337 Language Acquisition	2
SLI 338 Speech Pathology	2
SLI 339 Speech Evaluation	2
SLI 340 Speech Pathology Methods I	3
SLI 341 Directed Observation in Speech Pathology	1
SLI 342 Speech Correction Methods II	2
SLI 343 Clinical Practice in Speech Pathology I	2
SLI 344 Clinical Practice in Speech Pathology II	2
SHI 392 Introduction to Audiology	2
SHI 394 Auditory Training and Speechreading for the Hearing Impaired	3
SLI 416 Experimental Phonetics I	3
SLI 452 Voice	3
SLI 454 Stuttering	3
Electives (Optional)	0-4
SLI 241 Introduction to Speech Pathology	2
SLI 345 Clinical Practice in Speech Pathology III	2
Electives (to complete 124 hours)	11-10
Total	124

### Master of Arts Sequence

Area of Concentration	
Required Courses:	26-28
SLI 568 Diagnostic Methods in Speech Pathology	3
SLI 578 Audiometric Testing	3
SLI 597 Independent Study	1-6
SLI 614 Aphasia	3
SLI 687 Clin. Internship Sp. Path.	2
SLI 689 Public School Internship	4
SLI 694 Seminar in Public School Internship	2
Electives in Speech Pathology/Audiology	8-10
Cognates:	
EDP 677 Research Techniques	2
Electives outside Speech Path/Aud.	2-4
Total:	32-36

### Admission

Criteria and procedures for admission of undergraduate students to this major are being developed. All students interested in this program are initially only declaring an intention as a prospective major, and should consult the department for further information on admission.



## TEACHER EDUCATION DEPARTMENT

Department Head: Marvin Pasch

Professors: Leah D. Adams, Irene A. Allen, Ranjit S. Bajwa, Marie Dellas, Robert J. Fisher, Juanita Garfield, Bert I. Greene, Thomas M. Gwaltney, Eugene E. Haddan, Martha W. Irwin, Louise F. Jernigan, Robert E. Krebs, Wallace D. LaBenne, John W. Metler, Calvin B. Michael, Thomas O. Monahan, Louis P. Porretta, Quirico S. Samonte, Scott W. Street, Kishor N. Wahli, Jerome A. Weiser, W. Scott Westerman, Warren S. Williams, Wilbur A. Williams, Israel Woronoff, Stephen C. Zambito

Associate Professors: Gordon A. Belt, Mary G. Bigler, John Blair, James T. Bushey, Henry F. Corbacho, Hebert M. Jones, Edward Lederman, Judith McKee, Noel S. Moore, Leon E. Neeb, Robert S. Robinson

Assistant Professors: Arthur L. Carpenter, William E. Goldsmith, Marjorie Lipson, Robert T. Tibbals

The Department of Teacher Education provides courses in the orientation to education, the psychological and social foundations of education, methods, reading, driver education, educational media and library science.

### GRADUATE STUDY

The Department of Teacher Education offers graduate work leading to the master's degrees in early childhood education, elementary education, middle school/junior high, secondary school teaching, secondary school curriculum, reading, social foundations and educational psychology. For descriptions of graduate courses and programs, please consult the Graduate Catalog.

### COURSES

New courses are identified with a bullet •.

Courses in this department are arranged in ascending numerical order regardless of prefix. Prefixes for the Department of Teacher Education are: CUR for courses in Curriculum and Instruction, ECE for courses in Early Childhood Education, EDP for courses in Educational Psychology, EDM for courses in Educational Media, SFD for courses in Social Foundations and EDU for Student Teaching. Secondary Methods courses carry discipline specific prefixes and are starred and referenced to the appropriate department.

#### **CUR 100 Introduction to Education. Two sem hours**

Provides an opportunity to study the work of the teacher, the advantages and disadvantages of teaching and the requirements of the teacher education program. Group observations in laboratory and public schools and work with children, which will meet one of the present requirements for admission to the education courses at the junior level, are included. One class hour and two laboratory hours per week.

#### **EDM 100 Library Orientation. One sem hour**

A study of the resources of the University library, including basic reference tools, such as the card catalog, periodical indexes and yearbooks. For non-library science majors and minors only.

#### **ECE 101 Introduction to Early Childhood Education. Two sem hours**

A general overview of the educational profession. Opportunities and trends in education will be covered. Through the provision of an early orientation to the field, this course may

help students to make decisions regarding their personal career goals. Group observations of children in settings ranging from pre-schools and day care centers through secondary schools will be required.

#### **EDM 101 Use of Books and Libraries. Two sem hours (Group I)**

Open to any student who wants practical instruction in the use of the library's tools and materials. May not be taken by students who plan to major or minor in library science. On demand.

#### **EDP 106 Introduction to University Studies. Three sem hours**

(Formerly EDP 100) Designed to orient students to the role and function of the university; provide career orientation; improve study skills; acquaint students with available university services and provide opportunities for diagnostic testing and counseling. Prereq: Special permission of the Academic Services Center.

Introduction to University Studies (EDP 106) is available in winter term to all students needing study skills assistance. Credit is awarded and normal tuition charges apply.

#### **EDP 200 Early Childhood/Human Growth and Development. Five sem hours**

Includes human development, birth through maturity, with emphasis on the early years. Psychological foundations and their application to early childhood curriculum will receive special focus. The study of the individual will be stressed, and will include observational skills in recording children's behavior. Learning theories will be studied as they relate to differing curriculum models. In this block, students will have experiences with children such as listening or talking with children on a one-to-one basis or working with small groups in a pre-planned activity.

Prereq: PSY 101 or PSY 102 General Psychology and ECE 101 Introduction to Early Childhood Education. For Early Childhood Education Majors.

#### **EDP 206 Mental Hygiene. Two sem hours (Group II)**

A study of the facts, conditions, techniques and policies that further mental health and prevent mental illness. This course emphasizes skills and knowledge pertaining to effective inter-personal relationships and explores current concepts and approaches to mental health.

Prereq: 101 or 102 General Psychology. Not open to freshmen.

#### **\* LIT 207 Introduction to Children's Literature. Three sem hours**

(For description see Department of English Language and Literature.)

#### **ECE 300 The Young Child in School and Society. Eight sem hours**

An overview of the relationships between contemporary social forces and trends in early childhood education. Early childhood curricular models, pre-school and primary will be studied. Topics will include current issues in education, the teacher as a change agent, and dimensions of classroom climate. Interrelationships of society, community, family and classroom milieu will be analyzed. Special consideration will be given to the utilization of para-professional and community resource persons in the school. Directed field experiences in community settings such as day care centers, model cities programs and public and private school facilities will be required.

Prereq: EDP 200 Early Childhood/Human Growth and Development.

**ECE 301 Methods: Reading - Math - Science - Arts for Early Childhood. Ten sem hours**

Curriculum development and evaluation will be studied through approaches simulating learning environments for young children. Content, methods and materials for literature, social studies, science and the creative arts will be studied through an integrated approach. Students will study skill development in communication (language arts and mathematics) as functional learning processes. Emphasis will be placed upon the development of positive learning attitudes in children and on helping them learn how to learn. The mathematics and science departments will be included in the planning and staffing of these professional blocks. Block students will be encouraged to think divergently and creatively as they develop and organize learning materials in a classroom setting. Evaluation of students will be considered as a continuous process. Procedures, techniques and measures for use in children's programs will be employed. Directed field experiences will provide students opportunities to test their proficiency in implementing their ideas.

Prereq: ECE 300 *The Young Child in School and Society*.

**EDP 302 Educational Psychology. Three sem hours**

Introduction to principles in human growth and development, learning, personality and adjustment and measurement and evaluation applied to education.

Prereq: PSY 101 or 102 *General Psychology*. Not open to students in early elementary or junior-senior high school curriculums.

**CUR 303 Principles of Teaching. Three sem hours**

Must be completed before student teaching. Deals with the development of an operational philosophy of education; the application of the principles of educational psychology; the school as a social institution; and diagnosing, planning and maintaining a favorable learning environment.

Prereq: EDP 302 *Educational Psychology* or EDP 320 *Human Growth and Development*. Not open to students on early elementary or junior-senior high school curriculums. Not open to students who have had CUR 326 *School and Society* or CUR 327 *Multicultural Practicum*.

**MTH 306 Teaching of High School Mathematics.****Three sem hours**

(For description see Department of Mathematics and Computer Science.)

**SPH 307 The Teaching of Speech. Three sem hours**

(For description see Department of Communication and Theater Arts.)

**ENG 308 High School English. Three sem hours**

(For description see Department of English Language and Literature.)

**CUR 310 The Teaching of Reading. Three sem hours**

Designed for students in the early elementary and later elementary curriculums, the course deals with the developmental sequence of reading skills and with methods for teaching this sequence. The range is from the pre-reading period through the sixth grade. (This course is being phased out to be replaced by CUR 314.)

**CUR 311 Teaching Secondary Reading. Three sem hours**  
The developmental sequence for reading skills at the junior and senior high school levels and methods for teaching the sequence. Teaching programs are considered for both the normal and retarded reader at this level. Particular attention is given to providing reading instruction within the context of the various areas.

Prereq: Junior or senior standing. Required for all students who seek certification to teach in secondary schools.

**CUR 312 Experience Approaches to Language Arts.****Three sem hours**

Prospective teachers will use and evaluate varied approaches to help children develop language skills. Principles of language development, thinking processes and communication arts will be applied in an integrated curriculum.

**CUR 314 Teaching Reading and the Language Arts.****Six sem hours**

A concentration on the developmental aspects of reading and language arts programs from pre-school through elementary school. Involves 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 are included for the application of content to teaching practices.

Required for all students who seek certification to teach in elementary schools.

**EDM 314 Literature for Young Adults.****Three sem hours (Group I)**

Intensive study of the literature for young adults, grades 7-12; the techniques of reading guidance and an understanding of adolescents' interests and abilities in accordance with their developmental growth.

Prereq: LIT 207 *Introduction to Children's Literature*.

**EDP 318 Uses of Play in the Helping Professions.****Three sem hours**

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.

Prereq: EDP 302 *Educational Psychology* or EDP 320 *Human Growth and Development*, or equivalent.

**EDM 320 The Media Center in the School.****Three sem hours (Group VI)**

Introduction to the philosophy, objectives, functions, standards, programs and services of the school library as a media center in relation to the curriculum and educational goals of the school, with emphasis on the role of the media specialist.

**EDP 320 Human Growth and Development.****Four sem hours**

The study of social, emotional, physical and mental growth processes and developmental stages and their implications for learning and teaching. Not open to students who have had EDP 302 *Educational Psychology* or PSY 321 *Child Psychology*.

Prereq: PSY 101 or PSY 102 *General Psychology*.



**EDP 325 Life Span Human Growth and Development.****Four sem hours**

An exploration of the biological, cognitive, social, and affective domains of human growth and development as these domains pertain to the total human life span. Emphasis is placed on growth and development from the prenatal period until death and the relationship of growth and development through the life span to behavior.

Prerequisite: PSY 101 or 102 General Psychology.

**PHY 325 Methods of Teaching the Physical Sciences.****Three sem hours**

(For description see Physics and Astronomy Department.)

**CUR 326 School and Society.****Six sem hours**

The school in relationship to the society and the community in which it exists, the principles of effective learning, the foundations of curriculum, the school as a social institution, and the classroom as an effective group. Supervised observation and experience with children required. Not open to students who have had 303 Principles of Teaching.

Prerequisite: EDP 320 Human Growth and Development.

**CUR 327 Multi-cultural Practicum.****Six sem hours**

This course presents an overview of the impact of social, economic, demographic and political forces upon the goals and operation of the schools. Within this framework, special attention is given to the ways in which the interaction between the school and its cultural setting affects the education of Spanish-speaking children. To provide a more practical orientation, this course includes illustrative case studies, field trips, and selected guests invited to discuss specific topics and problems. The student has experience in learning about the multi-cultural-multiethnic diversity in American Society and American Education. This is followed up by carefully designed first-hand experiences in working with multicultural education in school settings.

Prerequisite: 75 hours of field experience involved.

**MUS 330 Music Education in the Elementary School.****Three sem hours**

(For description see Department of Music.)

**MUS 331 Music Education in the Secondary School.****Three sem hours**

(For description see Department of Music.)

**MUS 332 Instrumental Music in the Public Schools.****Four sem hours**

(For description see Department of Music.)

**MUS 333 Orchestral Methods.****Two sem hours**

(For description see Department of Music.)

**MUS 334 Band Methods.****Two sem hours**

(For description see Department of Music.)

**EDP 340 Introduction to Measurement and Evaluation.****Two sem hours**

General introduction to basic principles and problems in measuring, evaluating and reporting growth and development. Students learn how to construct teacher-made tests. Other topics include measurement of cognitive abilities, interests, attitudes and personal and social adjustment.

Prerequisite: EDP 302 Educational Psychology or EDP 320 Human Growth and Development for Teacher Education students; PSY 101 General Psychology and junior standing for other students.

**EDP 341 Measurement and Assessment of Young Children.****Three sem hours**

Introduction to measurement and evaluation concepts and to measuring tools and techniques used to assess the intellectual, social, emotional, and physical behavior of young children. Prerequisite: PSY 101 General Psychology, ECE 101 Introduction to Early Childhood Education and EDP 200 Early Childhood Human Growth and Development.

**EDM 344 Audio-Visual Methods in Teaching.****Two sem hours (Group IV)**

A methods course in which instructional materials are considered in their relationship to the why of their use, what the materials are and how to use them in the classroom. Provision is made for students to gain experience in the selection, utilization and evaluation of teaching materials.

Prerequisite: CUR 303 Principles of Teaching or equivalent.

**\* GEO 347 Teaching Earth Science.****Three sem hours**

(For description see Department of Geography and Geology.)

**\* GEO 348 Teaching Social Studies in Elementary Schools.****Three sem hours**

(For description see Department of Geography and Geology.)

**SFD 354 Juvenile Delinquency. Three sem hours (Group III)**

Factors contributing to personal and social maladjustment, symptoms of behavior disorders, work of agencies which serve children, constructive community programs to prevent and control delinquency. Laboratory experiences in school and community agencies.

Prerequisite: PSY 101 or 102 General Psychology. Not open to freshmen or sophomores.

**\* DAN 354 Methods and Materials in the Teaching of Dance.****Three sem hours**

A study of the methods and the use of materials in the teaching of dance idioms K-12. Emphasis is placed on modes and models that facilitate learning, lesson planning, and vertical progression. The course will include experiences in teaching and field observations.

**\* BE 364 Methods of Teaching General Business Subjects.****Two sem hours**

(For description see Department of Business and Industrial Education.)

**\* BE 365 Methods of Teaching Office Education.****Two sem hours**

(For description see Department of Business and Industrial Education.)

**\* BE 366 Methods and Materials in Teaching Distributive Education.****Two sem hours**

(For description see Department of Business and Industrial Education.)

**PED 367 Methods and Materials in Physical Education.****Three sem hours**

A study of the methods and the use of materials used in the teaching of indoor activities in the elementary and secondary grades. Opportunity is given to do practice teaching and to receive constructive criticism. Observations and reports of the work carried on in the schools are required.

**\* HEC 370 Resources in Teaching Home Economics Education.****Two sem hours**

(For description see Department of Home Economics.)

**HEC 374 Methods and Materials in Home Economics Education.** Two sem hours  
(For description see Department of Home Economics.)

**HEC 375 Resources in Teaching Family Life Education.** Two sem hours  
(For description see Department of Home Economics.)

**MTH 381 The Teaching of Mathematics K-6.** Three sem hours  
(For description see Department of Mathematics.)

**EDP 402 Learning in the Later Years.** Three sem hours  
Introduction to the nature of age related changes and differences among age groups found in the teaching-learning process. Emphasis on learning in later years, including processes, strategies and variable associated with the older learner.  
*Prereq: PSY 101 General Psychology or equivalent.*

**EDM 402 General Reference.** Three sem hours (Group I)  
The emphasis is on the selection, critical examination, evaluation and use of general reference materials, and the techniques of reference service.

**SFD 402 Sexism and Education.** Three sem hours (Group VI)  
How sexist attitudes and behaviors affect and are affected by school policies and practices; considers educational aims, staff relations, teaching styles, decision-making, treatment of pupils, instructional materials, anti-sexist programs.

**MTH 403 Current Research in Elementary School Mathematics.** Three sem hours  
(For description see Department of Mathematics and Computer Science.)

**BIO 403 Methods and Materials for Teaching Biology.** Two sem hours  
(For description see Department of Biology.)

**EDM 404 Selection and Use of Materials.** Three sem hours (Group VI)  
Sources and criteria for selection of all types of book and non-book materials for grades K-12; study of selection policies and censorship. Two hour lab required.

**EDM 405 Organization of Materials.** Three sem hours (Group VI)  
Theory and methods of organizing book and non-book materials in school media centers, with emphasis on classification and cataloging. Two hour lab required.  
*Prereq: EDM 320 The Media Center in the School and EDM 404 Selection and Use of Materials.*

**EDM 406 Storytelling.** Two sem hours (Group I)  
Survey of folk and contemporary literature appropriate for oral interpretation; techniques and practice in the art of storytelling.

**EDM 409 History of Books and Libraries.** Two sem hours (Group III)  
The evolution of books and printing from earliest times to the present day; the rise and development of libraries.

**FLA 411 Methods of Teaching Modern Languages.** Two sem hours  
(For description see Department of Foreign Languages and Bilingual Studies.)

**FLA 412 Methods of Teaching Modern Languages in the Elementary Grades.** Two sem hours  
(For description see Department of Foreign Languages and Bilingual Studies.)

**CUR 415 Directed Observation.** Two sem hours  
Summer session on demand.

**FA 416 Art Methods and Materials.** Two sem hours  
(For description see Department of Art.)

**FA 417 Teaching of Art.** Two sem hours  
(For description see Department of Art.)

**CUR 418 Seminar in Education.** Two sem hours  
An opportunity to continue the development of a professional philosophy of education through the exploration of problems arising from (a) placement and professional activity, (b) the student teaching experience, and (c) the alternative solutions proposed for persistent, professional problems.  
*Prereq or coreq: Student teaching. Graded credit/no credit.*

**CUR 419 Instructor's Course in Driver Education.** Three sem hours  
Introduction to driver education; the task of the driver education teacher. Course content, methods and media for secondary schools. Laboratory experiences in the dual-control car, car handling techniques and the driving simulator.

**CUR 420 Advanced Instructor's Course in Driver Education.** Three sem hours  
Methods and materials used in driver education. Organization, scheduling, administration, records, etc. Student teaching with a beginning driver. *Eight hours of courses in driver education and traffic safety required to be approved initially to teach driver education.*  
*Prereq: CUR 419 Instructor's Course in Driver Education.*

**CUR 421 Seminar in Driver Education.** Two sem hours  
Advanced study in methods and techniques of teaching driver education with emphasis on the psychological aspects of driving.  
*Prereq: CUR 419 Instructor's Course in Driver Education.*

**EDM 430 Special Problems of the School Library.** Two sem hours (Group VI)  
Seminar restricted to advanced students making a more detailed study of some phase of library work.  
*Prereq: EDM 404 Selection and Use of Materials, EDM 405 Organization of Materials and the permission of the department.*

**PED 440 Tests and Measurements in Physical Education.** Two sem hours  
To prepare students for the discriminating selection, administration, interpretation and use of standardized tests and measurements in physical education.  
*Prereq: EDP 302 Educational Psychology.*

**EDP 446 Advanced Educational Psychology.** Two sem hours  
Designed to supplement and intensify educational psychology by involving both a broader and more detailed application of the facts of psychology to the problems of learning in the schools. These problems involve both the elementary school and the high school. The most important experimental studies of the learning process are examined and discussed. Individual and class experiments in learning are performed.  
*Prereq: EDP 302 Educational Psychology.*

**\* IE 461 The Teaching of Industrial Education. Two sem hours**

(For description see Department of Business and Industrial Education.)

**\* HIS 481 The Teaching of Social Studies. Three sem hours**

(For description see the Department of History and Philosophy.)

**CUR, EDM, EDP, SFD 478, 479 Special Topics. Two and three sem hours**

A course which can be offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations.

**CUR 490 — 491 Special Work (Honors Courses). One and two sem hours**

Designed to provide additional experiences for exceptionally promising students who are seeking certification. Work based on problem or research interest with written and/or oral report. Prereq: Senior standing, 3.5 average and all regulations regarding honors courses stated on page 27. Permission of the dean and department head is required.

**EDU 492 Student Teaching. Eight sem hours**

Practical experience under guidance of supervising teachers in planning for teaching, in managing the classroom, in directing the learning activities of pupils. Student teachers are expected to assume increasing responsibility for directing the activities of the classroom group to the point that during the semester they will be expected to assume full responsibility. For eight semester hours of student teaching, student teachers are required to spend a minimum of 26 clock hours per week in the student teaching center.

Prereq: CUR 326 *School and Society* or CUR 303 *Principles of Teaching*, requirements for student teaching (see page 195), requirements for admission to courses in education (see page 194), plus prerequisites as follows in designated curriculums:

- Early Elementary: Two of the methods courses. (CUR 314 *Teaching of Reading*, MTH 381 *Teaching of Mathematics*, or ESC 303 *Science for the Elementary School Teacher*.)
- Later Elementary: Three of the methods courses. (CUR 314 *Teaching of Reading*, MTH 381 *Teaching of Mathematics* ESC 303 *Science for the Elementary School Teacher* or GEO 348 *Teaching Social Studies in the Elementary School*.)
- Junior-Senior High School: A special methods course in major or minor field.
- Specialized fields: The appropriate special methods course or courses in the major field. Students who student teach in their minor specialized field must complete the methods course in that field.

**EDU 493 Student Teaching. Two sem hours**

For experienced teachers attending the summer session. Permission of director of student teaching is required.

**EDU 494 Student Teaching. Three sem hours**

For experienced teachers attending summer session. Permission of director of student teaching is required. Also for special education majors in hearing impaired.

**EDU 495 Student Teaching. Four sem hours**

Permission of director of student teaching required.

**EDU 496 Student Teaching. Four sem hours**

Prereq: 495 *Student Teaching* and permission of director of student teaching.

**EDU 497 Student Teaching. Four sem hours**

Prereq: Credit toward certification in either 495 or 496 *Student Teaching*.

**EDU 498 Student Teaching. Five sem hours**

Approval of Coordinating Council on Professional Education required.

**EDU 499 Student Teaching. Six sem hours**

Approval of Coordinating Council on Professional Education required.

**CUR, EDM, EDP, SFD 497, 498, 499 Independent Study. One, two and three sem hours**

Advanced study on an individual basis in areas in which the department does not offer a formal course.

Prereq: Permission of the department.

## EDUCATIONAL MEDIA (Library Science)

This curriculum is offered to meet the demands for school librarians in the elementary and secondary schools. Election may be made with the approval of the adviser. See the curriculum and minor in library science below.

All courses listed as library science count toward certification for school library work. With the exception of EDM 344 *Audio-Visual Methods*, none of the courses may be taken for professional education credit.

All courses, except EDM 405 *Organization of Materials*, are open as electives to all students in the University.

Degree-only students take either minor or major without EDU 496 *Student Teaching (Library Practice)*.

Courses are offered in rotation. Two years are required to complete the minor or major.

## CURRICULUM FOR LIBRARY SCIENCE

### Bachelor of Science or Bachelor of Arts Degree

#### \*Elementary or Secondary Provisional Certificate

Adviser Chairman, Henry J. Corbacho  
(487-1266)

Educational Media; Department of Teacher Education

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit-hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area.

If Elementary Provisional Certificate is desired, consult with the director of Academic Records and Certification regarding special requirements. In Group II, election of MTH 101 *Functional Mathematics* is recommended.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	Semester Hours
Group I Language .....	22-25
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
**LIT 207 Introduction to Children's Literature	3
**EDM 314 Literature for Young Adults .....	3
**EDM 404 Storytelling .....	2
**EDM 402 General Reference .....	3
Electives .....	6
Group II Science and Mathematics .....	11-12
(No more than two courses in one department)	
PSY 101 or 102 General Psychology .....	3-4
One laboratory science course.	
A second laboratory science course or a course in mathematics.	
Group III Social Sciences .....	11
HIS 101, 102 History of Western Civilization .....	6
Either of the following: .....	3
PLS 112 American Government or	
PLS 202 State and Local Government	
**EDM 409 History of Books and Libraries .....	2
Humanities .....	9
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts (automatically met by Group V courses below.)	
Group IV Education .....	22-5
EDP 302 Educational Psychology .....	3
CUR 303 Principles of Teaching .....	3
CUR 314 Teaching Reading and the Language Arts or CUR 311 Teaching Secondary Reading	3-6
**EDM 344 Audio-Visual Methods .....	2
CUR 418 Seminar in Education .....	2
EDU 495 Student Teaching .....	4
EDU 498 Student Teaching (Library Practice) .....	5
Students working toward a secondary teaching certificate will take, in addition, the methods course in their minor subject field:	
Group V Fine Arts .....	5-6
Electives .....	5-6
Group VI Practical Arts .....	9
**EDM 320 Media Center in the School .....	3
**EDM 404 Selection and Use of Materials .....	3
**EDM 405 Organization of Materials .....	3

\*In addition to the courses designated\*, six hours of electives from Groups I, II and III must be selected with the approval of the adviser chairman. The 30-hour major requires the addition of a 20-hour minor or a 24-hour group minor in Groups I, II or III. The minor must be in an appropriate teaching area if the student is to secure a Provisional Teaching Certificate.

Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Free electives .....	31-23
Total .....	124

Because some graduate schools of library science require one year of a foreign language, it is recommended that it be taken at the undergraduate level (10 to 12 semester hours). Students in library science need to have a reasonable skill in typing. At least nine hours of Group VI courses must be taken at Eastern Michigan University.

#### Library Science Minor (20 semester hours)

Library Science courses are offered on a rotating basis. Two years are required to complete the program.

	Semester Hours
Required courses:	
LIT 207 Introduction to Children's Literature ...	3
EDM 314 Literature for Young Adults .....	3
EDM 320 The Media Center in the School .....	3
EDM 402 General Reference .....	3
EDM 404 Selection and Use of Materials .....	3
EDM 405 Organization of Materials .....	3
Elect one of the following:	
EDM 406 Storytelling .....	2
EDM 409 History of Books and Libraries .....	2
EDM 430 Special Problems of the School Li- brary .....	2
*EDU 496 Student Teaching (Library Practice) ..	4

For physical science majors electing a library science minor, CHM 491 History of Chemistry will be substituted for EDM 314 Literature for Young Adults. Degree-only students take the minor without library practice.

At least six semester hours must be taken at Eastern Michigan University from courses in Group VI.

## EARLY CHILDHOOD EDUCATION

Adviser Chairperson, Leah Adams  
(487-0110)  
Department of Teacher Education

Eastern Michigan University initiated a pilot program in Early Childhood Education during the fall semester, 1973. The program, an alternative to the Early Elementary program, includes course work, pre-student teaching and student teaching experiences involving pre-school as well as elementary school children. The graduates of the program receive elementary certification plus nursery school preparation and are qualified to work in pre-schools and day care centers as well as teach at the elementary level. Students join the program their freshman or sophomore year by enrolling in ECE 101 Introduction to Early Childhood Education for two hours credit.

Unique features of the program include large blocks of time for the professional courses instead of a number of independent courses. For example, the methods courses and audio-visual instruction have been incorporated into one 10-credit-hour block called ECE 301 Methods: Reading - Math - Science - Art for Early Childhood which is taken the second semester of the junior year.

\*These are four of the eight hours of student teaching.

Each of the education courses includes field experiences with young children. These experiences fulfill pre-student teaching requirements. Students in the program have student teaching experiences at both the pre-school and early elementary levels.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

The required courses are offered during the regular fall and winter terms. There are no specific provisions at present for accelerated programs, although students can take basic studies and major and minor classes during spring and summer terms.

Further information about the program can be obtained from the Academic Services Center, 229 Pierce Hall (487-2170) or the office of the Department of Teacher Education, 325 Pierce Hall (487-3260).

### Early Childhood Education

	Semester Hours
Group I Language .....	14-15
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
LIT 207 Introduction to Children's Literature ...	3
SPM 222 Drama and Play in Human Experience	3
Group II Science and Mathematics .....	10-11
MTH 101 Functional Mathematics .....	3
PSY 101 or 102 General Psychology .....	3-4
One laboratory science course .....	4
Group III Social Sciences .....	12
One history course .....	3
Two courses in sociology .....	6
105 Introductory Sociology .....	3
One of the following:	
SOC 204 Marriage and Family .....	3
SOC 214 Racial and Cultural Minorities ...	3
SOC 306 The Urban Community .....	3
SOC 308 Social Psychology .....	3
Either of the following: .....	3
112 American Government or	
202 State and Local Government	
Humanities .....	9
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion	
(Arts course requirements automatically met in Group V below.)	

Group IV Education .....	33
Freshman Year	
ECE 101 Introduction to Early Childhood Education .....	2
Sophomore Year	
EDP 200 Early Childhood/Human Growth and Development .....	5
Junior Year	
ECE 300 The Young Child in School and Society	8
ECE 301 Methods: Reading, Mathematics, Sciences, Arts for Early Childhood .....	10
Senior Year	
Student Teaching Early Childhood Education.	8
Directed student teaching, a) Four hours student teaching at the pre-school level. b) Four hours student teaching at the kindergarten level or primary level. During each four hour block of directed teaching, one hour of released time each week will be provided for a seminar contact with University supervisor. Students must complete appropriate majors and minors. See especially those listed on pages 224-225.	
Group V Fine Arts .....	2-3
Any one of the following:	
FA 101 Introduction to Art .....	3
FA 300 Creative Arts .....	3
FA 104 Elements of Music .....	2
FA 322 Music Literature for Children .....	2
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Must include:	
PED 257 Physical Education for the Classroom Teacher	
One dance course	
Note: Two semester hours of military science may be applied toward this requirement.	
Electives (Toward major and minors and free) ....	40-37
Total .....	124

## CURRICULA FOR ELEMENTARY TEACHERS

Students interested in teaching on the elementary level may choose from Early Childhood Education, Early Elementary Education, Later Elementary Education (suitable for students interested in teaching at the middle school level also) or may consider Special Education.

### Early Elementary Curriculum

#### Bachelor of Science Degree

#### State Elementary Provisional Certificate Kindergarten, Grades 1, 2 and 3

(487-3260)

Department of Teacher Education

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	<b>Semester Hours</b>
<b>Group I Language</b> .....	11-13
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
LIT 207 Introduction to Children's Literature ...	3
<b>Group II Science and Mathematics</b> .....	18
MTH 101 Functional Mathematics .....	3
PSY 101 General Psychology .....	3
*PHY 100 Science for Elementary Teachers (Physics) .....	3
*CHM 101 Science for Elementary Teachers (Chemistry) .....	3
*GEO 202 Science for Elementary Teachers (Earth Science) .....	3
*ESC 303 Science for Elementary Teachers (Biology ESC) .....	3
<b>Group III Social Sciences</b> .....	9-12
One course in American Government from: PLS 112 American Government or PLS 202 State and Local Government .....	3
One course in history.	
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
<b>Humanities</b> .....	9
Two courses in literature in the English Department, two intermediate foreign language courses or two advanced foreign language literature courses.	
One course in philosophy or religion. One course in art, music or dramatic arts (automatically met in Group V courses below.)	
<b>Group IV Education</b> .....	31
*CUR 314 Teaching Reading and the Language Arts .....	6
EDP 320 Human Growth and Development ..	4
*CUR 326 School and Society .....	6
EDM 344 Audio-Visual Methods in Teaching ..	2
*MTH 381 Teaching of Mathematics K-6 .....	3
*CUR 418 Seminar in Education .....	2
EDU 492 Student Teaching .....	8
<b>Group V Fine Arts</b> .....	11
FA 101, 300 Art .....	6
MUS 104, 320 Music .....	5

Group VI Practical Arts .....	3
IE 253 Industrial Technology and the Elementary Teacher .....	3
IE 354 Experiences in Technology for Children ..	2
<b>Group VII Physical Education and Health</b> .....	6
HED 320 Health Education in Elementary Grades ..	2
Physical education activity courses. All students must take PED 257 Physical Education for the Classroom Teacher .....	4
Note: Two semester hours of military science may be applied toward this requirement.	
<b>Additional Required Work</b> .....	2
SLI 241 Introduction to Speech Correction .....	22-15
<b>Free Electives</b> .....	124
<b>Total</b> .....	124

The student must complete:

1. A major of at least 30 semester hours or a group major of 36 semester hours, and a planned program of 20 semester hours in other substantive fields deemed appropriate to elementary education (which may consist of courses required on the Curriculum for Teachers in the Elementary Grades), or
2. Three minors of at least 20 semester hours each, two of which shall be in substantive fields which may include a group minor of 24 semester hours, and one of which may be a planned program of 20 semester hours in a combination of methods and content appropriate to elementary education (which may consist of courses required on the Curriculum for Teachers in the Elementary Grades). When this "Content and Methods" minor is used as one of the three minors, an arts group minor is not recommended as one of the minors in substantive fields, since all required Group V and VI courses are already applied to the content and methods minor.

Majors and minors may be chosen from the following list where available and appropriate (See program requirements for details):

Art, Arts Group, Astronomy, Bilingual Bicultural Education (Spanish-English), Biology, Conservation, Dance, Dramatic Arts, Earth Science, Elementary Science, English, Speech and Dramatic Arts, English Language, English Language and Literature, English Literature, French, General Science, Geography, Geology, German, Health, History, Home Economics, Industrial Education, Library Science, Mathematics, Music Education, Occupational Therapy, Physical Education, Political Science Group, Spanish, Speech, Speech and Dramatic Arts, Drama for the Young.

A person who fulfills the curriculum requirements for an elementary provisional certificate will have automatically completed the minimum requirements for a planned program minor of 20 semester hours. In cooperation with an academic adviser, the student will select appropriate electives to strengthen this program.

Specific curricular patterns by semester are provided for each student by the College of Education upon enrollment. The normal academic load per semester is 15 to 16 semester hours, until student teaching is undertaken in the senior year.

\*The starred courses in Group II Science include preparation in methods of teaching elementary school science. Courses 100, 101, 202, and 303 should be taken in sequence. Advisers should be consulted by transferees and other students where adjustments may be necessary.

\*\*Students who have credit for CUR 303 Principles of Teaching or EDP 340 Introduction to Measurement and Evaluation should continue to satisfy those requirements. The double-starred courses under Group IV Education must be completed prior to student teaching.



## Later Elementary Curriculum

### Bachelor of Science Degree

### State Elementary Provisional Certificate Grades 4, 5, 6

Adviser Chairman, **Wilbur Williams**  
(487-1013)  
Department of Teacher Education

All students must complete the required courses in each of the four areas of the Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	<b>Semester Hours</b>
Group I Language .....	11-12
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
LIT 207 Introduction to Children's Literature ...	3
Group II Science and Mathematics .....	18
MTH 101 Functional Mathematics .....	3
PSY 101 General Psychology .....	3
*PHY 100 Science for Elementary Teachers (Physics) .....	3
*CHM 101 Science for Elementary Teachers (Chemistry) .....	3
*GEO 202 Science for Elementary Teachers (Earth Science) .....	3
*ESC 303 Science for Elementary Teachers (Biology ESC) .....	3
Group III Social Sciences .....	12
One course in history .....	3
GEO 110 World Regions .....	3
Continental Geography course .....	3
Either of the following: .....	3
PLS 112 American Government or	
PLS 202 State and Local Government	
Humanities .....	9
Two courses in literature in the English Department, two intermediate foreign language courses or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts (automatically met in Group V courses below).	

\*The starred courses in Group II Science include preparation in methods of teaching elementary school science. Courses 100, 101, 202, and 303 should be taken in sequence. Advisers should be consulted by transferees and other students where adjustments may be necessary.

Group IV Education .....	32
EDP 302 Educational Psychology .....	3
CUR 303 Principles of Teaching .....	3
**CUR 314 Teaching Reading and the Language Arts .....	6
EDP 340 Introduction to Measurement and Evaluation .....	2
EDM 344 Audio-Visual Methods in Teaching .....	2
**GEO 348 Teaching Social Studies in Elementary Schools .....	3
**MTH 381 Teaching of Mathematics K-6 .....	3
CUR 418 Seminar in Education .....	2
EDU 492 Student Teaching .....	8
Group V Fine Arts .....	11
FA 101, 300 Art .....	6
MUS 104, 320 Music .....	5
Group VI Practical Arts .....	5
IE 253 Industrial Technology and the Elementary Teacher .....	3
IE 354 Experiences in Technology for Children .....	2
Group VII Physical Education and Health .....	6
HED 320 Health Education in Elementary Grades Physical education activity courses. All students must take PED 257 Physical Education for the Classroom Teacher .....	4
Note: Two semester hours of military science may be applied toward this requirement.	
Free electives .....	20-19
Total .....	124

In addition to the above requirements, students must complete one of the following options:

1. A major of at least 30 semester hours or a group major of 36 semester hours, and a planned program of 20 semester hours in other substantive fields deemed appropriate to elementary education (which may consist of courses required on the Curriculum for Teachers in the Elementary Grades), or
2. Three minors of at least 20 semester hours each, two of which shall be in substantive fields which may include a group minor of 24 semester hours, and one of which may be a planned program of 20 semester hours in a combination of methods and content appropriate to elementary education (which may consist of courses required on the Curriculum for Teachers in the Elementary Grades). When this "Content and Methods" minor is used as one of the three minors, an arts group minor is not recommended as one of the minors in substantive fields, since all required Group V and VI courses are already applied to the content and methods minor.

Majors and minors may be chosen from the following list where available and appropriate (See program requirements for details):

Art, Arts Group, Astronomy, Bilingual Bicultural Education (Spanish-English), Biology, Conservation, Dance, Dramatic Arts, Earth Science, Elementary Science, English Speech and Dramatic Arts, English Language, English Language and Literature, English Literature, French, General Science, Geography, Geology, German, Health, History, Home Economics, Industrial Education, Library Science, Mathematics, Music Education, Occupational Therapy, Physical Education, Political Science, Recreation, Science Group, Social Science Group, Spanish, Speech, Speech and Dramatic Arts, Drama for the Young.

\*\*Prior to student teaching, EDP 302 Educational Psychology, CUR 303 Principles of Teaching and two of the double-starred courses in Group IV Education must be completed.

A person who fulfills the curriculum requirements for an elementary provisional certificate will have automatically completed the minimum requirements for a planned program minor of 20 semester hours. In cooperation with an academic adviser, the student will select appropriate electives to strengthen this program.

Specific curricular patterns by semester are provided for each student by the College of Education upon enrollment. Students are assigned to a faculty adviser who assists them in planning all programs of classes. The normal academic load per semester is 15 to 16 semester hours, until student teaching is undertaken in the senior year.

### Group Majors and Minors for Early and Later Elementary and Early Childhood Teachers

The available options for satisfying the major subject and minor subject requirements of the elementary teaching curriculums are stated above. Students may use either the regular departmental major and minor sequences appearing under program headings in this section of the catalog, or the group majors and minors outlined below.

The group minors are also acceptable on the special education curriculum.

These majors and minors below are **not** available to students on other curriculums.

#### Arts Group Major (36 semester hours)

	Semester Hours
FA 101 Introduction to Art .....	3
FA 104 Elements of Music .....	2
FA 222 Drama and Play in Human Experience ..	3
FA 253 Industrial Technology and the Elementary Teacher .....	3
FA 300 Creative Arts .....	3
MUS 320 Early Elementary Music Education ...	3
IE 354 Experiences in Technology for Children ..	2

Electives to complete major from courses in the following:

fine arts, industrial education, music, drama for the young, or dramatic arts .....	17
<b>Total</b> .....	<b>36</b>

#### Arts Group Minor (24 semester hours)

All courses listed above under arts group major are required except SPH 222. Add electives to complete the minor from courses in the following: fine arts, industrial education, music or dramatic arts:

<b>Total</b> .....	<b>24</b>
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Electives for the arts group major and minor may be drawn from, but are not limited to the following recommended courses:

**Fine Arts:** 100 Art Appreciation, 107, 108, or 421 History of Art; 122 Two-Dimensional Design, 123 and 124 Drawing I and II; 222 African and Afro-American Art; 231 Three-Dimensional Design; 301 Graphic Design; 334 Women in Art.

**Industrial Education:** 102 Woodwork, 104 Graphic Arts, 105 History of Industrial Technology, 118 Energy Utilization, 121 Graphic Communications, 152 Arts and Crafts, 255 Art Metalwork

**Music:** 106 Introduction to the Performing Arts, 107 Music Appreciation, 151 and 152 Class Piano, 232 Voice Class, Applied Music Lessons, 131 University Choir, 134 University Women's Chorus, 135 University Men's Glee Club, 222 Classroom Instruments, 249 University Band, 248 University Orchestra, 274 Functional Guitar, 322 Music Literature for Children, and 224 Recreational Music.

**Dramatic Arts, Drama for the Young, Interpretation:** 222 Drama and Play in Human Experience, 322 Theatre for Children, 323 Improvisation, 324 Oral Interpretation of Children's Literature, 150 Introduction to Theatre, 151 Black Theatre: An Introduction, 106 Introduction to the Performing Arts, 153 Introduction to Theatre Crafts, 251 Black Theatre: Creative Problems, and 497, 498 and 499 Independent Study, 210 Interpretative Reading, 168, 268 368, 468 Interpretation.

**Bilingual Bicultural Education (Spanish-English) Group Minor** (24 semester hours). See page 107.

#### Content and Methods Minor (20 semester hours)

As long as they are not used on another minor, the courses to make up a planned program in "content and methods" appropriate to elementary education may be drawn from, but are not limited to the following:

Art 101, 300; Music 104, 320; Industrial Education 253, 354; Mathematics 101; Literature 207, Speech Pathology SLI 241, Teaching Social Studies GEO 348, Health Education HED 320, Audio-Visual EDM 344; Physics 100; Chemistry 101; Geography 202; Biology ESC 302, 303.

#### Elementary Science Group Major (36 semester hours)

	Semester Hours
Required Courses: .....	16-15
PHY 100 Science for Elementary Teachers (Physics) .....	3
CHM 101 Science for Elementary Teachers (Chemistry) .....	3
GEO 202 Science for Elementary Teachers (Earth Science) .....	3
ESC 303 Science for Elementary Teachers (Biology ESC) .....	3
PSY 102 or 101 General Psychology .....	4-3
Restricted electives from courses listed below .....	20-21

#### Elementary Science Group Minor (24 semester hours)

	Semester Hours
Required Courses: .....	16-15
PHY 100 Science for Elementary Teachers (Physics) .....	3
CHM 101 Science for Elementary Teachers (Chemistry) .....	3
GEO 202 Science for Elementary Teachers (Earth Science) .....	3
BIO 303 Science for Elementary Teachers (Biology ESC) .....	3
PSY 102 or 101 General Psychology .....	4-3
Restricted electives from courses listed below .....	8-9

This may be applied on planned, group, or content and methods minors. Consult your adviser for details.

Courses from the following list may be elected to complete a major or minor in science for the elementary curriculum. Of the total of 36 hours required on the major, not more than 12 hours may be taken in any one department.

**Biology:** Biology and the Human Species, 107 Heredity and You, 205 Field Biology, 207 Elements of Ecology, 209 Ornamental Plants, 215 Economic Botany, 224 Principles of Conservation, 232 Nature Interpretation, 354 Trees and Shrubs, 400 Principles of Biological Techniques, 405 Organic Evolution.



**Chemistry:** 105 Survey of Chemistry or 115-116 Chemistry and Society (includes laboratory), 118 Contemporary Materials, or 119 Fundamentals of Chemistry, 120 Fundamentals of Chemistry, 131 General Chemistry I.

**Geography and Geology:** 114 National Parks and Monuments, 226 The Oceans, 227 Topographic Maps, 229 Rocks of Michigan, 230 Historical Geology, 301 Cartography, 303 Field Geography, 309 Drifting Continents, 324 Weather and Climate, 325 Geomorphology.

**Physics and Astronomy:** 110 Physical Science, 112 Physical Science II, 210 Musical Acoustics, 211 Elementary Physical Science, 203 Exploration of the Universe, 221 Mechanics, Sound and Heat and 222 Electricity and Light.

**Foreign Language Minors (20 semester hours)**

**Semester Hours**

**French**  
 FRN 343, 344 French Conversation and French Composition ..... 6  
 Electives in French, any level ..... 14  
 Total ..... 20

**German**  
 GER 343, 344 German Composition and German Conversation ..... 6  
 Electives in German, any level ..... 14  
 Total ..... 20

**Spanish**  
 SPN 343, 344 Spanish Composition and Spanish Conversation ..... 6  
 Electives in Spanish, any level ..... 14  
 Total ..... 20

**Library Science Minor (20 semester hours)**  
 LIT 207 Introduction to Children's Literature ... 3  
 EDM 314 Literature for Young Adults ..... 3  
 EDM 320 The Media Center in the School ..... 3  
 EDM 402 General Reference ..... 3  
 EDM 404 Selection and Use of Materials ..... 3  
 EDM 405 Organization of Materials ..... 3  
 EDM 406 Storytelling or  
 409 History of Books and Libraries ..... 2  
 Total ..... 20

Also required is EDU 496 Student Teaching (Library Practice), four semester hours, as part of the student teaching work.

**Literature, Language, Speech and Dramatic Arts Group Major**

Students may elect a group major consisting of 36 semester hours:

**Semester Hours**

**Literature**  
 1. Any two of the following:  
 LIT 100, 101, 102, 103, 251, 260 ..... 6  
 2. LIT 210 Introduction to Shakespeare ..... 3  
 3. LIT 207 Introduction to Children's Literature ..... 3

**Language**  
 ENG 121 or 119 English Composition ..... 3  
 Nine hours to be chosen from the following, three of which must be either ENG 325 Expository Writing or ENG 335 Imaginative Writing ..... 9  
 ENG 301 Introduction to English Language  
 ENG 302 Modern English Syntax  
 ENG 320 Introduction to Linguistics  
 ENG 321 History of the English Language  
 ENG 325 Expository Writing  
 ENG 335 Imaginative Writing

**Speech and Dramatic Arts**

SPH 121 or 124 Fundamentals of Speech ..... 2-3  
 SPH 210 Interpretative Reading ..... 3  
 SPH 222 Drama and Play in Human Experience ..... 3  
 Elective in speech or dramatic arts ..... 4-3  
 Total ..... 36

The courses listed above under Literature and 121 (or 119) English Composition may be applied to the English language and literature major by a student in elementary or special education. See the English Department listings.

See also the minors in dramatic arts for children and a special speech minor for students in elementary or special education offered by the Communication and Theater Arts Department on page 84.

For the interdisciplinary major of 36 hours in Literature, Library Science, and Drama for the Young, see page 98.

**Elementary Minor**

**in Industrial Education (20 semester hours)**

This minor may be selected by any student on an elementary or special education curriculum. This minor is also permitted for special education majors getting secondary certification. It is not available to students on other programs.

**Semester Hours**

Required Courses: ..... 5  
 IE 253 Industrial Technology and the Elementary Teacher ..... 3  
 IE 354 Experiences in Technology for Children ..... 2  
 Select two from the following: ..... 6  
 IE 102 Woodwork ..... 3  
 IE 118 Energy Utilization or  
 IE 119 Consumer Automotives ..... 3  
 IT 122 Technical Drawing or  
 IT 128 Architectural Drawing I ..... 3  
 IT 123 Metal Processes ..... 3  
 Electives ..... 9  
 IE 105 History of Industrial Technology ..... 3  
 IT 121 Graphic Communication ..... 3  
 IE 152 Arts and Crafts ..... 3  
 IT 200 Industrial Electricity ..... 3  
 IT 201 Construction Technology ..... 3  
 IT 203 Manufacturing Technology ..... 3  
 IE 204 Photographic Communication ..... 3  
 IT 217 Structure of Industry ..... 3  
 IE 250 Foundations of Industrial Education ..... 3  
 IE 350 Curriculum in Industrial Education ..... 3  
 IE 355 Seminar in Technology for the Elementary School ..... 2

Total Semester Hours ..... 20

See also the special major and minor in mathematics for elementary teachers on page 137.

**Social Science Group Major for Elementary Education (36 semester hours)**

At least twelve semester hours, but no more than eighteen semester hours, in one of the five social science areas; and at least three semester hours in each of the remaining areas must be elected. The five social science areas are: economics, geography (Group III), history, political science and sociology.

Geography and geology courses in science (Group II) and philosophy courses do not count on a social science group major or minor.

**Social Science Group Minor for Elementary Education (24 semester hours)**

Elementary education and special education students may elect the following group minor:

SOC 105 Introductory Sociology .....	3
HIS 123 Trends in U.S. History or two history courses .....	3-6
GEO 110 World Regions .....	3
ECO 200 American Economy (or 201 Principles of Economics I) .....	3
PLS 112 American Government .....	3
Social science electives .....	9-6
<b>Total .....</b>	<b>24</b>

**CURRICULUM FOR SECONDARY TEACHERS**

**Junior-Senior High School Curriculum**

**Bachelor of Arts or Bachelor of Science Degree\*\*  
State Secondary Provisional Certificate**

(Students intending to teach specialized subjects in junior-senior high - art, business education, consumer and home economics, industrial education, library science, music, physical education, dance, and recreation - should follow the curriculums listed under those teaching subjects, **not** the one listed on this page.)

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

For advising, students should first consult the adviser chairperson in their major field.

	<b>Semester Hours</b>
<b>Group I: Language .....</b>	<b>8-9</b>
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science. (Group I).	

<b>Group II Science and Mathematics .....</b>	<b>10-12</b>
(No more than two courses in one department).	
One laboratory science course.	
A second laboratory science course or a course in mathematics.	
PSY 101 General Psychology.	
<b>Group III Social Sciences .....</b>	<b>9-12</b>
One course in American government selected from:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
One course in history.	
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
<b>Humanities .....</b>	<b>11-12</b>
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts.	
<b>Group IV Education .....</b>	<b>27-28</b>
CUR 311 Teaching Secondary Reading .....	3
EDP 320 Human Growth and Development .....	4
CUR 326 School and Society .....	6
Methods course .....	2-3
G&C 405 Basic Guidance Concepts and Processes .....	2
CUR 418 Seminar in Education .....	2
EDU 492 Student Teaching .....	8
<b>Group VII Physical Education and Health .....</b>	<b>2</b>
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
<b>Free electives .....</b>	<b>58-50</b>
<b>Total .....</b>	<b>124</b>

All students are required to complete a major teaching subject of at least 30 semester hours or a group major of 36 semester hours. In addition, a minor of 20 semester hours or a group minor of 24 semester hours in subjects appropriate for teaching in secondary schools is required.

Specific curricular patterns by semester are provided for each student by the department in which the student is majoring. Students are assigned to a faculty adviser who is a member of the department that offers the major. This adviser assists students in planning all programs of classes. The normal academic load per semester is 15 to 16 hours until student teaching is undertaken in the senior year.

The following typical pattern of subjects by year is suggested in meeting the above requirement:

	<b>First Year</b>	<b>Semester Hours</b>
SPH 121 or 124 Fundamentals of Speech .....		2-3
ENG 121 English Composition or		
A foreign language course .....		3-5
101, 102 Reading of Literature or		
221, 222 Foreign Language .....		6
Two laboratory science courses or		
One laboratory science course and		
a mathematics course .....		6-8
Two history courses or		
One of these plus a course in economics, geography or sociology .....		6
A fine arts course in art, music or dramatic arts ..		2-3
Physical education activity courses .....		2
Courses in major per adviser		

**Note:** Some courses above may be deferred to the second year, if patterned to enable work in major subject to begin.

\*\*Degree desired

B.A. Completion of curriculum with 75 hours in Groups I, II, III and one year of college credit in one foreign language.



**Second Year**

**Semester Hours**

PSY 101 General Psychology .....	3
PLS 112 American Government or PLS 202 State and Local Government .....	3
One sociology, geography or economics course (if needed) .....	3
Physical education activity courses .....	2
Major, minor or elective courses	

**Third Year**

**Semester Hours**

CUR 311 Teaching Secondary Reading .....	3
EDP 320 Human Growth and Development .....	4
(Prereq: PSY 101 General Psychology)	
CUR 326 School and Society .....	6
(Prereq: EDP 320 Human Growth and Develop- ment)	
Methods course in major subject .....	2-3
A course in philosophy or religion .....	3
Major, minor or elective courses	

**Fourth Year**

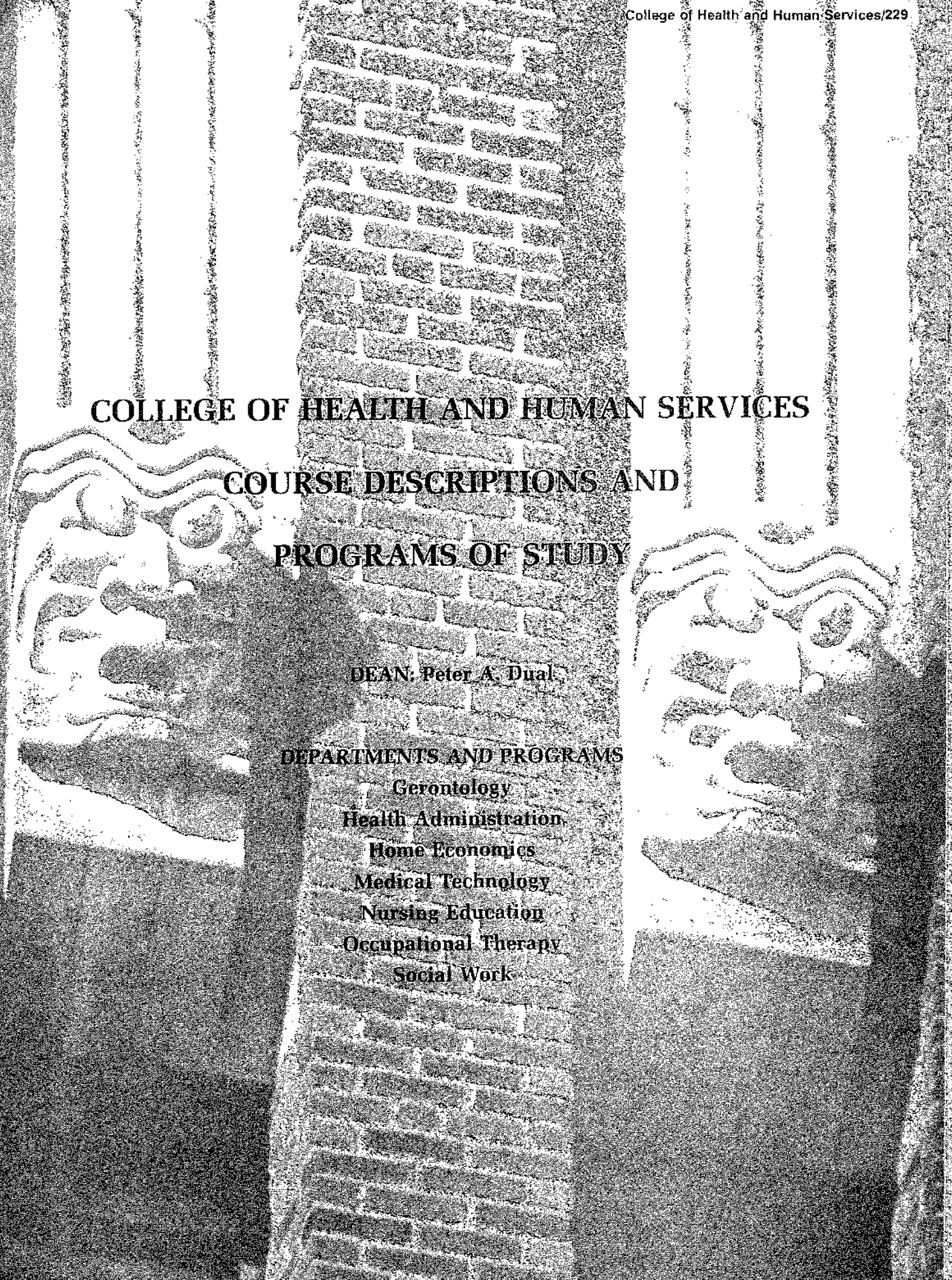
**Semester Hours**

EDU 492 Student Teaching .....	8
CUR 418 Seminar in Education .....	2
C&C 405 Basic Guidance Concepts and Processes ..	2
Major, minor or elective courses	

**DRIVER EDUCATION**

Driver education is not a major or a minor field of study. The "program" in driver education at Eastern Michigan University is a three course, eight semester hour sequence that takes at least two enrollment periods to complete. Satisfactory completion of these three courses, as well as meeting other standards determined by the State of Michigan Department of Education, will lead to approval for the teaching of driver education in Michigan. The two "Instructor's Courses," CUR 419 and 420, are lecture and laboratory courses, including dual-control car and driving simulator experiences, with time for some of these laboratory experiences required beyond the class hours listed in the class schedule bulletin.

Additional information is available from Dr. W. A. Williams, Department of Teacher Education, 325 Pierce Hall, 487-3261.



**COLLEGE OF HEALTH AND HUMAN SERVICES**  
**COURSE DESCRIPTIONS AND**  
**PROGRAMS OF STUDY**

**DEAN: Peter A. Dual**

**DEPARTMENTS AND PROGRAMS**

**Gerontology**  
**Health Administration**  
**Home Economics**  
**Medical Technology**  
**Nursing Education**  
**Occupational Therapy**  
**Social Work**

## STATEMENT OF PURPOSE AND PHILOSOPHY

The College of Health and Human Services, as an integral part of Eastern Michigan University, shares the educational responsibility of making available to all students, undergraduate and graduate, the intellectual training and knowledge that will add meaning and interest to their lives, no matter where they make their careers; of providing an education which will equip them to make important cultural, social and economic contributions to individuals and families in their community and state; and of providing an education for students of a quality and scope that will prepare them for lifelong learning.

The College of Health and Human Services is composed of applied fields that are committed to an interdisciplinary model of education and professional performance. The college strives for an organizational environment in which linkages with other programs and colleges is desired and encouraged. The college takes a leadership role in encouraging a close working relationship between the University and the community.

The College of Health and Human Services is professionally oriented. 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 a professional who is equipped to provide direct human services to individuals and/or families in a variety of settings including businesses, homes, schools, hospitals, and community and social agencies. Characterized by a concern for the quality of human life at all stages of man's development, human services are directed toward realizing the potential of the total person throughout the life cycle.

The College of Health and Human Services has a priority in Health/Human Service Manpower programs that provide an environment for students to master professional skills that will enable the practitioner to:

- promote health and an understanding of resources and aspects of human behavior necessary for a positive future;
- assist in the prevention/treatment of disease, disability, or further deterioration of negative conditions of life;
- provide skills that will directly or indirectly be supportive to processes of treating disease or deficit, therefore, improving the quality of life;
- provide direction for consumers to understand societal systems, management of resources, and how intervention and the administration of services may be positive elements to a better quality of life.

### History

The College of Health and Human Services, established in January, 1975, is comprised of the departments of home economics, nursing, education, occupational therapy and social work, and the programs in health administration and medical technology. It also offers a minor in gerontology.

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 meet the career opportunities and student interest in these professions. The college brings together both recent and long-established programs which 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 which govern the academic standards of many of the curricula and determine the requirements for entry into those professions, as indicated in the descriptions of these programs.

## CLINICAL AFFILIATIONS

The College of Health and Human Services has clinical affiliations with the following institutions:

Allen Park Veteran's Administration Hospital, Allen Park  
Ann Arbor Veteran's Administration Hospital, Ann Arbor  
Annapolis Hospital, Wayne  
Battle Creek Public Schools  
Beaumont Hospital, Royal Oak  
Beyer Memorial Hospital, Ypsilanti  
Bixby Hospital, Adrian  
Borgess Hospital, Kalamazoo  
Robert B. Brigham Hospital, Boston, Mass.  
Chelsea Community Hospital, Chelsea  
Children's Hospital, Detroit  
Cincinnati General Hospital, Cincinnati, Ohio  
Cooperative Extension Service, Ann Arbor  
Cottage Hospital, Grosse Pointe Farms  
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 Hospital, Detroit  
Flint Osteopathic Hospital, Flint  
Garden City Hospital, Garden City  
University of Indiana Medical Center, Indianapolis, Indiana  
Institute of Living, Hartford, Connecticut  
Institute of Rehabilitation Medicine, New York, New York  
Jewish Home for the Aged, Detroit  
John Knox Village Retirement Center, Ann Arbor  
Lafayette Clinic, Detroit  
Life Skills Center, Howell  
Livonia Public Schools, Livonia  
McLaren Hospital, Flint  
Metropolitan West Health Maintenance Organization, Westland  
University of Michigan Hospitals, Ann Arbor  
Muskegon Public Schools, Muskegon  
Normal Street House, Ypsilanti  
North Carolina Memorial Hospital, Chapel Hill, North Carolina  
Oakwood Hospital, Dearborn  
The Ohio State University Hospitals, Columbus, Ohio  
Parkview Extended Care Facility, Ypsilanti  
Pontiac General Hospital, Pontiac  
Port Huron Hospital, Port Huron  
Providence Hospital, Southfield  
Michigan Reese Hospital and Medical Center, Chicago, Ill.  
Rehabilitation Institute, Inc., Detroit  
Rehabilitation Institute of Chicago, Chicago, Illinois  
Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois  
Saginaw Public Schools, Saginaw  
Saline Community Hospital, Saline  
St. John's Hospital, Detroit  
St. Joseph Hospital, Flint  
St. Joseph Mercy Hospital, Ann Arbor  
St. Joseph Mercy Hospital, Pontiac  
St. Mary's Hospital, Livonia  
Sinai Hospital of Detroit, Detroit  
Suburban Industrial Medical Clinic, Livonia  
Synod House, Ypsilanti

Therapeutic Day Clinic, Inkster  
 Traverse City State Hospital, Traverse City  
 Tri County Home Health Care, Southfield  
 University of Washington Hospitals, Seattle, Washington  
 Washtenaw County Community Mental Health Program, Ann Arbor  
 Washtenaw County Health Department, Ann Arbor  
 Wayne County General Hospital, Eloise  
 Whitmore Lake Convalescent Center, Whitmore Lake  
 Willow Run Community Schools, Ypsilanti  
 Wyandotte General Hospital, Wyandotte  
 Ypsilanti Public Schools, Ypsilanti  
 Ypsilanti State Hospital, Ypsilanti

### Clinical Associate Faculty Health Administration Program

**Berg, Helen** V.P. for Nursing  
 Catherine McAuley Health Center  
 M.N.A., University of Iowa Ann Arbor

**Carroll, Terence** Executive Director  
 Comprehensive Health Planning Council  
 of Southeastern Michigan  
 M.A., Columbia University Detroit

**Dalston, Jephtha** Director  
 University Hospital  
 Ph.D., University of Oklahoma Ann Arbor

**Laverty, Robert** Executive Director  
 St. Joseph Mercy Hospital  
 M.H.A., University of Michigan Ann Arbor

**Lee, André** Assistant Administrator  
 St. Joseph's Hospital  
 Fort Wayne, Indiana  
 D.P.A., Nova University

**Lowe, Richard** Consultant Associate  
 Health Services  
 Technical Assistance, Inc.  
 M.H.A., University of Michigan Detroit

**Metherall, Peter** Administrator  
 Hillside Terrace  
 Retirement Home,  
 Ann Arbor  
 M.A., George Washington University

**Mullings, Paul** Assistant Administrator  
 Samaritan Health Center  
 M.H.A., University of Michigan Detroit

**Peters, Douglas** Executive Director  
 Henry Ford Hospital  
 M.H.A., University of Michigan Detroit

**King, Isadore** Deputy Director  
 Total Health Care of Detroit Inc.  
 M.B.A., C.P.A., University of Michigan Detroit

**Zamberlan, Albert** Administrator  
 Veterans Administration  
 Medical Center  
 M.H.A., Xavier University Ann Arbor

**Zugich, John** Director (Retired)  
 Northville Regional  
 Psychiatric Hospital,  
 Northville  
 M.P.H., Yale University

### Department of Home Economics (Dietetics)

**Brown, Margaret, R.D.** Assistant Manager,  
 University Food Service  
 Eastern Michigan University  
 M.S., Eastern Michigan University Ypsilanti

**Christoph, Carl, R.D.** Director  
 University Food Service  
 Eastern Michigan University  
 M.S., Eastern Michigan University Ypsilanti

**Dabbs, Mary, R.D.** Head, Clinical Dietetics  
 St. Joseph Mercy Hospital  
 Ann Arbor  
 B.S., Michigan State University

**Fisher, Harriett Ruth, R.D.** Director, Dietary Department  
 Oakwood Hospital, Dearborn  
 B.S., Michigan State University

**Goldsby, Janet, R.D.** Assistant Director, Food Services  
 St. Joseph Mercy Hospital, Ann Arbor  
 B.A., Albion College

**Greenwell, Ann, R.D.** Head, Clinical Dietetics  
 Wyandotte General Hospital,  
 Wyandotte  
 B.S., Michigan State University

**Joachim, Ralph** Head, Food Service Department  
 Wyandotte General Hospital,  
 Wyandotte  
 B.S., Michigan State University

**Johnson, Carolyn, R.D.** Clinical Dietitian  
 Veterans Administration Hospital  
 Ann Arbor  
 M.S., Cornell University

**Kern, Colleen, R.D.** Administrative Dietitian  
 Oakwood Hospital,  
 Dearborn  
 B.S., Michigan State University

**Morris, Norma, R.D.** Administrative Dietitian  
 Food Service  
 University of Michigan,  
 Ann Arbor  
 M.S., Eastern Michigan University

**Pratt, Nancy, R.D.** Director, Food Service Department  
 Heritage Hospital, Taylor  
 B.S., Michigan State University

**Smith, Glenna, R.D.** Head, Therapeutic Dietetics  
 Wayne County General Hospital  
 Eloise  
 B.S., Grayling College

**Springer, Ninfa, R.D.** Director, Nutrition Program  
 University of Michigan, ISMRD  
 Ann Arbor  
 Ph.D., University of Iowa

**Tappe, Bruce** Director, Foods Service  
 Beyer Memorial Hospital,  
 Ypsilanti  
 B.S., Michigan State University

**Vorce, Marian, R.D.** Clinical Dietitian  
 Beyer Memorial Hospital,  
 Ypsilanti  
 M.S., Eastern Michigan University

### Medical Technology (Generic Program)

**Barany, William, D.O.** Director of Laboratories  
 Garden City Osteopathic Hospital  
 Garden City

**Correll, Judy, BS, MT** Education Coordinator  
 W. A. Foote Memorial Hospital  
 Jackson  
 B.S., Eastern Michigan University

- Crockett, Diane, MS, MT** Education Coordinator  
Hutzel Hospital  
Detroit  
M.S., Wayne State University
- Cronin, Harriett, BS, MT** Education Coordinator  
Pontiac General Hospital  
Pontiac  
B.S., St. Mary's College
- Daksiewicz, Judy, MS, MT** Education Coordinator  
Wayne County General Hospital  
Westland  
M.S., Wayne State University
- Eckert, David, M.D.** Co-Director  
School of Medical Technology  
Oakwood Hospital  
Dearborn  
M.D., University of Michigan
- Harris, James, MS, MT** Education Coordinator  
Flint Osteopathic Hospital  
Flint  
M.S., Indiana University
- Himes, G. E., D.O.** Director of Laboratories  
Flint Osteopathic Hospital  
Flint
- Hughes, Carolyn, M.CLT., MT** Education Coordinator  
Garden City Osteopathic Hospital  
Garden City  
M.CLT., Wright State University
- Humes, J. J., M.D.** Director of Laboratories  
St. John Hospital  
Detroit  
M.D., University of Michigan
- James, Geraldine, MS, MT** Education Coordinator  
Oakwood Hospital  
Dearborn  
M.S., Wayne State University
- Jarzynski, Donald, M.D.** Director, School of Medical  
Technology  
St. Joseph Mercy Hospital  
Pontiac  
M.D., University of Michigan
- Johnson, Sheralyn, MS, MT** Education Coordinator  
St. Joseph Mercy Hospital  
Pontiac  
M.S., Wayne State University
- Kluka, Marge, MS, MT** Education Coordinator  
St. John Hospital  
Detroit  
M.S., Wayne State University
- Libcke, John H., M.D.** Director of Laboratories  
Pontiac General Hospital  
Pontiac  
M.D., Wayne State University
- Meyers, Kenneth, M.D.** Co-Director  
School of Medical Technology  
Oakwood Hospital  
Dearborn
- Mikat, Kurt, M.D.** Director of Laboratories  
McLaren General Hospital  
Flint
- Mitchener, James, M.D.** Director of Laboratories  
Port Huron Hospital  
Port Huron
- Schmidt, Robert W., M.D.** Director of Laboratories  
Wayne County General Hospital  
Westland  
M.D., Ohio State University
- Shalhoub, Carolyn, MS, MT** Education Coordinator  
Providence Hospital  
Southfield  
M.S., University of Michigan
- Silberberg, Boris, M.D.** Director of Laboratories  
Providence Hospital  
Southfield  
M.D., Wayne State University
- Wienbrauck, Deborah, BS, MT** Education Coordinator  
Port Huron Hospital  
Port Huron
- Young, Nan, BS, MT** Education Coordinator  
McLaren General Hospital  
Flint

## Medical Technology (Degree Completion Program)

### Advance Medical and Research Center, Inc., Pontiac

**Baran, Robert, B.S., R.Ph.** Chemistry  
B.S., Wayne State University

**Barnard, Frederick, M.A., MT** General Supervisor  
M.A., Central Michigan University

**Beaubien, William, B.S., MT** General Supervisor  
B.S., Michigan State University

**Linder, Janet, M.S., MT** Blood Bank  
M.S., Wayne State University

**Mitchell, Thomas, B.S.** Education Coordinator  
B.S., Concord College

**Pappas, John, M.A.** Director, Chemistry  
M.A., Boston University

**Picklo, James, M.S., MT** Microbiology  
M.S., Wayne State University

**Shlagor, Christine, A.A.S., MLT** Hematology  
A.A.S., Oakland Community College

**Shlagor, Peter A., B.S.** General Supervisor  
B.S., Michigan State University

### Chelsea Medical Laboratories, Inc.

**Bogdanowicz, Marta, B.S., MT** Chemistry  
B.S., Nazareth College

**Finch, Judith, B.S., MT** Hematology  
B.S., University of Michigan

**Konwinski, Judy, B.S., MT** Microbiology/Blood Bank  
B.S., University of Michigan

**Lovett, Carmelita, M.S., MT** Coordinator  
M.S., Wayne State University

### Mercy Hospital - Port Huron

**Chircop, Marc, B.S., MT** Coordinator/Hematology  
B.S., Michigan State University

**Jensen, Joan, B.S., MT** Blood Bank  
B.S., Michigan State University

**Stepnowski, Jamina** Chemistry  
School of Medical Technology - Sarnia, Canada

**Wojcik, Pauline, B.S., MT** Microbiology  
B.S., Wayne State University

### Pontiac General Hospital

**Cronin, Harriett, B.S., MT** Coordinator  
B.S., St. Mary's College

**Libcke, John, M.D.** Director of Laboratories  
M.D., Wayne State University

**McAndrew, Carol, B.S., MT(SBB)** Blood Bank  
B.S., Siena Heights College

**Saline Community Hospital**

**Auge, Davis, B.S., MT** Chemistry  
B.S., Eastern Michigan University

**Cottrill, Diana** General  
Institute of Clinical Laboratory Technology

**Hopkins, Rex** Coordinator  
Paddington Technical College  
London, England

**Valentine, Ann M., B.S., MT** Hematology  
B.S., Temple University

**St. Joseph Mercy Hospital, Ann Arbor**

**Barry, Thomas, B.S., MT** Special Hematology  
B.S., Eastern Michigan University

**Britt, Eugene, Ph.D.** Microbiology  
Ph.D., University of Michigan

**Cousins, Patricia J., B.S., MT** Electrophoresis,  
B.S., Bryan College Immunology and Serology

**DeNeff, Stephanie, B.S., MT** Hematology  
B.S., St. Louis University

**Erwin, Brenda, B.S., MT** Coagulation  
B.S., University of Michigan

**Everett, David, B.S.** Blood Bank  
B.S., University of Michigan

**Faust, Sue, B.S., MT** Microbiology  
B.S., University of Delaware

**Johnson, Robert M., Ph.D.** Special Chemistry  
Ph.D., University of Wisconsin

**Meadows, Theodore, M.D.** Hematology

**Mickle, Annette, M.S., MT** Director, Continuing Education,  
M.S., Univ. of Michigan Laboratory Computer Services

**Voorhees, John, B.S., MT** Hematology  
B.S., Mt. Union College

**Woodward, James, M.S.** Chemistry  
M.S., Eastern Michigan University

**University of Michigan Medical Center, Ann Arbor**

**McClatchey, Kenneth D., D.D.S., M.D.** Associate Professor,  
Department of Pathology  
Medical Director,  
D.D.S., M.D., University of Michigan Degree  
Completion Program

**Myhre, Karen, B.S., MT** Special Hematology  
B.S., Michigan State University Department of  
Internal Medicine

**Veterans Administration Medical Center, Ann Arbor**

**Bajbor, Jane, M.A.** Blood Bank  
M.A., University of Warsaw

**Boyd, Carolyn, M.S., MT** Blood Bank  
M.S., University of Michigan

**Erwin, Roland, M.S.** Hematology/Coagulation

**Frazier, Hazel, M.S., MT** Special Chemistry  
M.S., University of Central Arkansas

**Gardner, Ane, B.S., MT** Hematology/Coagulation  
B.S., University of Wisconsin

**Hertz, Constance, M.S.** Microbiology  
M.S., University of Michigan

**Killian, Lynn, B.S., MT** Chemistry  
B.S., Hastings College

**Department of Occupational Therapy**

**Bernier, Patricia (OTR)** Teaching Supervisor  
Annapolis Hospital  
B.S., Eastern Michigan University Wayne

**Burkhardt, Barbara (OTR)** Teaching Supervisor  
University of Michigan Hospital  
M.A., Eastern Michigan University Ann Arbor

**Bykowski, Garry (OTR)** Teaching Supervisor  
B.S., Eastern Michigan University Sinai Hospital  
Detroit

**Cagle, Eila (OTR)** Teaching Supervisor  
Wyandotte General Hospital  
B.S., Wayne State University Wyandotte

**Fuhrman, Helen (OTR)** Teaching Supervisor  
B.S., Wayne State University Sinai Hospital  
Detroit

**Gray, Elizabeth (OTR)** Teaching Supervisor  
B.S., Wayne State University Neuropsychiatric Hospital  
University of Michigan Ann Arbor

**Hensley, Carol (OTR)** Teaching Supervisor  
B.S., Mount Mary College Ypsilanti Regional Mental  
Health Center  
Ypsilanti

**McCurry, Eleanore (OTR)** Teaching Supervisor  
B.S., University of Illinois Clinton Valley Center  
Pontiac

**Moore, Donald (OTR)** Teaching Supervisor  
B.S., Eastern Michigan University Veterans Administration  
Hospital  
Ann Arbor

**Taylor, Mary M. (OTR)** Teaching Supervisor  
M.S., Wayne State University Rehabilitation Institute, Inc.  
Detroit

**General Requirements**

Admission to the University, for students indicating an intention to enter the dietetics, health administration, medical technology, nursing, or occupational therapy programs, does not guarantee admission to the programs. These programs have separate admission procedures with the number of students admitted restricted because of available clinical facilities and other considerations.

In addition to the general academic retention and graduation requirements of the University, some of the programs in the College of Health and Human Services have other specific academic requirements for retention or continuation in the programs. Any details of these requirements not already announced in this catalog will be communicated before students begin the professional segment of their programs.

Students planning to teach in the Family Life and the Consumer and Home Economics Education programs must also be admitted to the College of Education and meet the requirements listed on page 194.



## Degrees Offered

The University offers Bachelor of Science degrees in 12 programs in the College of Health and Human Services, including a teaching program in Consumer and Home Economics Education offered in cooperation with the College of Education. Through the Department of Home Economics, the University also offers master's degrees in general home economics and in home economics with specializations in clothing, textiles and related arts; family life and child development; foods and nutrition; and consumer management.

The 12 bachelor's degree programs:

- Consumer and Home Economics Education
- Consumer Services with specializations in
  - Consumer Affairs
  - Foods in Business
- Dietetics
- Family Life
- Fashion Merchandising
- General Home Economics
- Health Administration
- Interior Design and Housing
- Medical Technology
- Nursing (B.S.N.)
- Occupational Therapy
- Social Work

## GERONTOLOGY MINOR

This 24-semester-hour interdisciplinary minor is available to students who are majors in any department or college of the University and 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 educators.

The program is administered by the Department of Social Work in the College of Health and Human Services through an advisory council of faculty persons actively involved in the area of Gerontology:

persons actively involved in the area of Gerontology:

- Janet Boyd, Chairperson ..... Nursing
- Thomas Bushey ..... Educational Psychology
- Francis Canter ..... Psychology
- William Fennel ..... Biology
- Marie Immekus ..... Occupational Therapy
- Donald Loppnow ..... Social Work
- Walter Moss ..... History and Philosophy
- Ira Wasserman ..... Sociology

Current Gerontology Advisory Council members can be contacted through the Gerontology Office (Room 228 King Hall, 487-2310).

## COURSES

New courses are identified with a bullet •

### • GRT 404 Gerontology Interdisciplinary Seminar.

Three sem hours

Designed to help students integrate knowledge and skills gained from other gerontology courses and life experiences. The course will introduce students to insights on aging available from the humanities disciplines.

Prereq: Senior standing, completion of two courses in Gerontology minor or permission of instructor.

## GERONTOLOGY MINOR

(Non-Teaching)

Adviser Chairperson, **Donald Loppnow**  
(487-0393)

The Gerontology Minor is composed of five content areas. In order to complete the Minor, students are required to register for 24 semester hours. In addition to the explicitly required courses, students should complete their elective requirements by selecting courses from each of the content areas.

	Semester Hours
Required Core Courses .....	20-24
I. Psycho/Social and Environmental Aspects of Aging (three courses required)	
Required Courses .....	10
SOC 311 Social Gerontology .....	3
EDP 325 Life Span - Human Development ..	4
PSY 323 Psychology of Human Aging .....	3
Approved Electives	
HEC 269 Ecological View of Housing .....	3
EDP 402 Learning in the Later Years .....	3
PSY 551 Psychology of Death and Dying ....	2
HEC 642 Family in Middle and Later Years ..	2
II. Biological and Health Aspects of Aging (one course required)	
Required Courses .....	2
BIO 239 Biology of Aging .....	2
Approved Electives	
HEC 201 Nutrition for the family .....	3
HEC 202 Human Nutrition .....	3
HEC 412 Nutrition of the Life Cycle .....	3
OT 413 Conditions of Adulthood and Aging ..	3
PED 420 Health and Aging .....	3
III. Policies and Services for the Aging	
Required Courses .....	3
SWK 420 Working with Aging People .....	3
Approved Electives	
HAD 300 Health Care Issues .....	2
HAD 310 Administration of Health Care Organizations .....	3
ECO 327 Social Insurance and Economic Security .....	3
SWK 418 Policies and Issues in Services to Families .....	3
SWK 424 Social Work with Physically and Mentally Handicapped .....	3
IV. Gerontology Practicum or Research .....	2-6
Each student must complete a practicum or research/independent study course in gerontology. This course must be selected and approved in consultation with a gerontology adviser.	
V. Gerontology Interdisciplinary Seminar	
Required Course .....	3
GRT 404 Gerontology Interdisciplinary Seminar .....	3

## HEALTH ADMINISTRATION PROGRAM

**Professor:** Peter A. Dual  
**Program Coordinator:** Pending  
**Associate Professor:** Donald C. Kraushaar

The Health Administration Program is structured around a group of courses that deals with the issues and concerns administrators are faced with today. Because health administration is a blend of health and management disciplines, many courses are taken in the College of Business. The remaining courses are taken in other university departments such as economics, sociology and psychology.

The requirements for the Health Administration curriculum are described on page 236.

### COURSES

New courses are identified with a bullet •

**HAD 300 Health Care Issues.** **Two sem hours**  
 A survey of important issues facing the health field. An overview of the U.S. health care system and the relationship between components. The course will focus on the changing nature of the health field and implications for the future.

**HAD 301 Health Care Issues Seminar.** **One sem hour**  
 Seminar required for majors, normally taken concurrently with HAD 300 Health Care Issues.

**HAD 310 Administration of Health Care Organizations.** **Three sem hours**  
 Analysis of modern health care organizations with emphasis on management structure, board of trustees, administration, physicians and others. Attention focused on delivery of institutional patient care, role of professionals, and other personnel and departmental interrelatedness.  
*Prereq: HAD 300 Health Care Issues.*

**HAD 415 Planning and Regulation of the Health Industry.** **Three sem hours**  
 Review of regulations affecting the health industry, particularly health planning. Ramifications explored for community, consumer and provider groups. Legislation and implications studied.  
*Prereq: HAD 310 Administration of Health Care Organizations; ECO 201 Principles of Economics.*

**HAD 420 Financial Management of Health Institutions.** **Three sem hours**  
 The application of generic concepts and tools to the health field.  
*Prereq: ACC 241 Principles of Accounting, FIN 350 Principles of Finance and ORI 215 Computers in Business.*

**HAD 425 Decision Making for Health Administrators.** **Three sem hours**  
 The integration of many knowledge areas into the domain of health administration. A capstone course utilizing case studies, role playing, simulation and games.  
*Prereq: HAD 310 Administration of Health Care Organizations, HAD 420 Financial Management of Health Institutions and program permission.*

**HAD 477, 478, 479 Special Topics in Health Administration.** **One, two, three sem hours**  
 These are courses for seniors. Topics included will depend upon the interests of the students and the faculty member's field of specialization.



### Teaching Opportunities

Students who are qualifying for a Secondary Teachers Certificate may wish to complete this minor beyond the required teaching major and minor. This would prepare them for service in occupational training programs in secondary schools, where geriatric aide training is in progress or being developed. Those students should consult a Gerontology adviser to select appropriate electives for this sequence and, in addition, complete two summers (or equivalent) of full-time employment in a convalescent or extended care facility.

When selecting activity classes to meet the physical education graduation requirements, the student in gerontology may enhance his career preparation by selecting courses such as PEG 103 Couple, Square, and Ballroom Dancing, PEG 158 Folk Dancing, or other appropriate leisure activity skills.

**HAD 497, 498, 499 Independent Study.**

**One, two and three sem hours**

Under the supervision of a health administration faculty member, these courses provide an opportunity for study in subjects not covered in other course offerings, or advanced study in areas of special interest to the student.

Prereq: Permission of the department.

**HEALTH ADMINISTRATION PROGRAM**

The purpose of the Health Administration Program at Eastern Michigan University is to enable practicing health administrators and individuals in the health field wanting to become managers or supervisors to pursue a bachelor's degree in health administration. The program is suited for men and women employed as administrators and the people who function as their assistants in a variety of health care institutions and the middle managers in larger health organizations, such as executive housekeepers and insurance supervisors.

The curriculum concentrates on the principles and processes utilized in the fields of health administration and management. It is a blend of social sciences, humanities and business related courses combined with specific core courses related to health care and the delivery of health care services.

**PROGRAM GOALS**

The goal of the Health Administration Program is to prepare health administrators to contribute to the health of the public by providing:

- knowledge of the many components of the health care system broadly defined
- the skills necessary to manage the delivery of services in a health care organization.
- the attitudes needed for a role of leadership and advocacy of social equity
- preparation for continued learning to keep abreast of professional change.

**CAREER OUTLOOK AND OPPORTUNITIES**

The Program is designed to prepare graduates for entry level positions in public and private health services organizations such as:

- Nursing homes
- Mental hospitals
- Extended care facilities
- Rehabilitation institutions
- General hospitals
- Health maintenance organizations
- Group practice plans
- Outpatient clinics
- Welfare departments
- Health insurance companies
- Blue Cross/Blue Shield plans
- Planning agencies
- Health departments
- Health and hospital associations
- Residential and retirement facilities

A wide variety of entry and middle level positions may be found in these organizations, including administrative assistant, personnel assistant, unit manager, budget assistant, purchasing agent, staff analyst and assistant planner.

The program is especially suited to the allied health practitioner with an associate degree or diploma and wanting to pursue a bachelor's degree providing additional related career opportunities.

Students completing the academic program without specific health related work experience may take advantage of a one-semester work experience (administrative practicum) to be elected for credit during the senior year.



**Health Administration Curriculum**

**Bachelor of Science Degree**

Adviser Chairman: **Donald C. Kraushaar**  
(487-0460)

	<b>Semester Hours</b>
Group I Language .....	8-9
One course in English Composition or, if eligible, a foreign language.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
(SPH 225 Listening Behavior, recommended.)	
Group II Science and Mathematics .....	16-17
MTH 104 Intermediate Algebra (if needed) .....	3
MTH 118 Mathematical Analysis for Social Sciences I .....	3
MTH 119 Mathematical Analysis for Social Sciences II .....	3
PSY 101 or 102 General Psychology .....	3-4
One lab science course, unless PSY 102 taken ..	4
Group III Social Sciences .....	21
One course in American Government selected from:	
PLS 112 American Government OR	
PLS 202 State and Local Government .....	3
One course in history .....	3
ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
*ECO 436 Health Economics .....	3
SOC 105 Introductory Sociology .....	3
*SOC 312 Medical Sociology .....	3

Humanities Area .....	11-12
Two courses in literature in the English Department, or two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in art, music or dramatic arts.	
One course in philosophy or religion, (PHI 130 Introduction to Logic, preferred.)	
Group VI Practical Arts .....	45
Health Administration .....	15
HAD 300 Health Care Issues .....	2
HAD 301 Health Care Issues Seminar .....	1
HAD 310 Administration of Health Care Organizations .....	3
HAD 415 Planning and Regulation of the Health Care Industry .....	3
HAD 420 Financial Management of Health Institutions .....	3
HAD 425 Decision Making for Health Administrators .....	3
Business Related .....	30
ACC 240 Principles of Accounting .....	3
ACC 241 Principles of Accounting .....	3
ADS 303 Legal Environment of Business OR PLS 301 American Legal System .....	3
FIN 350 Principles of Finance .....	3
MGT 382 Introduction to Management OR PLS 270 Introduction to Public Administration .....	3
MGT 384 Personnel Administration .....	3
MGT 386 Organization Theory and Development .....	3
MKT 360 Principles of Marketing .....	3
ORI 215 Computers in Business .....	3
ORI 365 Business Statistics I OR ECO 310 Economic Statistics OR Equivalent .....	3
Group VII Physical Education and Health .....	4
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
**Free Electives .....	18-21
Total .....	124

In this program, the courses in Group VI plus the courses denoted with an asterisk (\*) in Group III complete the major and minor requirement for graduation. No outside minor is needed.

\*The following courses are recommended as electives.

Since a maximum of 30 semester hours of College of Business courses is permitted for completion of the degree requirements, students should consult an advisor when electing additional College of Business courses.

ACC 342 Managerial Cost Accounting

ADS 403 Labor Law

ECO 322 American Labor Unions

ORI 374 Production Management

PHI 220 Ethics

PLS 332 Intergovernmental Relations and Federalism

PSY 351 Industrial Psychology

PSY 360 Abnormal Psychology

SOC 307 Industrial Sociology

SOC 362 Complex Organizations

## HOME ECONOMICS

Department Head: Billie Lou Sands

Professors: Betty L. Bornemeier, Duane M. Laws, Ruby L. Meis, Billie Lou Sands

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Home Economics is the study of the relation of person to person, person to things, and person to the environment. The home economist views the family as an educational force which contributes to the qualitative development of each member and prepares them for effective productivity for self and society. Career opportunities open to home economists occur in private and public enterprises; in educational systems for children, youth, and adults; in all types of business fields; and with federal, state, and local governmental agencies.

The Department of Home Economics offers curricula which provide Bachelor of Science degrees in:

General Home Economics

Vocational Consumer and Home Economics Education

Consumer Services, with specialization

in Consumer affairs or foods in business

Dietetics

Family Life

Fashion Merchandising

Interior Design and Housing

Minors are available in:

General Home Economics

Clothing and Textiles

Child Care and Guidance Services

Family Life

Nutrition

All are described in the Programs of Study on pages 242-250.

All courses are open as electives to any student who has met course prerequisites.

## GRADUATE STUDY

The Home Economics Department offers graduate work leading to the master's degree in home economics with specializations in:

Clothing and Textiles

Consumer Affairs

Family and Child Development

Foods and Nutrition

Housing, Interiors and Equipment

General Home Economics.

## COURSES

New courses are identified with a bullet •

**HEC 102 Family Food Management.** Two semesters. Emphasis on management of human and economic resources in planning nutritionally adequate meals for contemporary living groups. Not open to students who take HEC 250 Meal Management.

- HEC 105 Integrated Arts.** **Three sem hours**  
Provides an opportunity for students to become familiar with the application of design elements and principles in their responses to human and contemporary environmental needs. Laboratory required.
- HEC 107 Food for Man.** **Two sem hours**  
An interdisciplinary approach to the study of the relationships between food habits and social, psychological, religious and cultural factors.
- HEC 109 Interpersonal Relations in the Family.** **Two sem hours**  
Focuses on the skills and attitudes essential for developing interpersonal competence in the family and other social networks. Insight into the behavior of oneself and others will be emphasized to help the student achieve competence in various types of interpersonal relationships.
- HEC 112 Introduction to Consumer Affairs.** **Three sem hours**  
A study of the roles of consumers as they interact with the economic system, government and other consumers. Includes redress mechanisms, legislation affecting consumers, credit practices and regulations, and financial planning.
- HEC 113 Family Health Care.** **Two sem hours**  
Survey of current health problems and community resources available to families.
- HEC 114 Clothing for Consumers.** **Three sem hours**  
The selection of appropriate clothing in relation to family needs and resources throughout the family life cycle.
- HEC 116 Foods for Consumers.** **Three sem hours**  
Basic study of foods for consumers, including principles of food selection, preparation and preservation.
- HEC 118 Clothing Principles.** **Three sem hours**  
Application of clothing principles, standards and techniques through construction of a garment. Little or no previous sewing experience necessary.
- HEC 119 Early American Textiles.** **Three sem hours**  
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.
- HEC 200 The Family as Environment.** **Two sem hours**  
Study of the development, structures, functions, roles, values, and environment within the family system.
- HEC 201 Nutrition for the Family.** **Three sem hours**  
Study of nutrient needs for the development and maintenance of normal growth and health. *Not open to students who take HEC 202 Human Nutrition.*
- HEC 202 Human Nutrition.** **Three sem hours**  
Study of nutrients with emphasis on their sources, structure, and function, and the processes of digestion, absorption and metabolism in man. *For nursing and dietetics students. Not open to students who take HEC 201 Nutrition for the Family.* Prereq: CHM 120 Fundamentals of Chemistry or CHM 131 General Chemistry I.
- HEC 208 Basic Interior Design.** **Three sem hours**  
An application of the basic principles and concepts of design as they pertain to the relationship between contemporary human needs and environmental needs. The emphasis will be on color theory as well as on functional and creative interior design. Laboratory required.  
Prereq: HEC 105 Integrated Arts (waived for art majors); Interior Design minors should be competent in basic architectural drawings.
- HEC 209 Marriage and Interpersonal Competence.** **Three sem hours**  
Consideration of skills needed for interpersonal competence in marriage such as communication and decision-making. The focus will be on the marital dyad and the various stages of development in marriage until parenthood.
- HEC 210 Display Techniques.** **Two sem hours**  
The techniques, resources and evaluation of effective displays for use in educational, commercial and informational exhibits. Participation experiences provided in all phases of display work.  
Prereq: HEC 105 Integrated Arts.
- HEC 211 Food Science.** **Three sem hours**  
Nature and reactions of food explained in terms of chemical composition, microbial flora and manipulative practices.  
Prereq: HEC 116 Foods for Consumers and either CHM 120 Fundamentals of Chemistry or CHM 270 Organic Chemistry.
- HEC 214 Living with Young Children.** **Three sem hours**  
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 HEC 215 Child Development Lab. I required.  
Prereq: Sophomore standing.
- HEC 215 Child Development Lab. I: Preschool Child.** **One sem hour**  
Observation of child growth and development; participation with children 2½ to 5 years of age at the Children's Center. Concurrent registration in HEC 214 Living with Children is required.
- HEC 235 Textiles for Consumers.** **Three sem hours**  
Deals with the study and analysis of fabrics used for clothing and household purposes: their wearing qualities and cost. Laboratory required.
- HEC 245 Fashion Analysis.** **Three sem hours**  
Analysis of the fundamentals of fashion with a study of the basic principles that influence and govern all fashion movement; the history, development, organization, and merchandising activities of the clothing industry.  
Prereq: HEC 200 The Family as Environment.
- HEC 251 Meal Management.** **Three sem hours**  
Study of management of time, human and economic resources in the planning and the preparation of meals. *Not open to students who take HEC 102 Family Food Management.*  
Prereq: HEC 116 Foods for Consumers and HEC 201 Nutrition for the Family or HEC 202 Human Nutrition.
- HEC 269 Ecological View of Housing.** **Three sem hours**  
A study of housing as it relates to the social, economic, historical and political conditions for individuals and families in society.  
Prereq: Sophomore standing.

**HEC 271 Household Equipment. Three sem hours**

Study of appliances, basic principles of operation, performance, care and comparative values for consumer selection.

Prereq: *Sophomore standing.*

**HEC 275 Presentation Techniques. Three sem hours**

A presentation of the techniques used to illustrate interior design solutions. The emphasis will be on two dimensional and three dimensional graphic techniques, color renditions and model construction as well as on the development of a personal graphic style.

Prereq: *HEC 208 Basic Interior Design and IT 128 Architectural Drawing I.*

**HEC 285 Home Management. Three sem hours**

Management and relationships basic to satisfying home and family life. Includes decision-making in the use of resources within the framework of family values and goals and managerial systems. Special emphasis on managerial situations such as low income, working homemakers, and single parent families.

Prereq: *HEC 200 The Family as Environment.*

**HEC 301 Orientation to Dietetics. Two sem hours**

Study of different facets and specializations of dietetics profession. Discussion of interdisciplinary approach to total health care. Supervised clinical experiences in health care facilities. *Open only to dietetics students.*

Prereq: *HEC 202 Human Nutrition and HEC 211 Food Science.*

**HEC 302 Experimental Clothing. Three sem hours**

Experiences in clothing construction with emphasis on processes and techniques relative to varied fabrics and designs. Student should know basic sewing skills such as use of a commercial pattern, use of a machine and be knowledgeable in types of fabrics.

Prereq: *HEC 235 Textiles for Consumers and HEC 118 Clothing Principles.*

**HEC 303 Interdisciplinary Study of Clothing. Three sem hours**

A study of man and his clothing with social, psychological and cultural emphasis.

Prereq: *HEC 200 The Family as Environment or HEC 400 The Family in Environment.*

**HEC 305 Family Development: Middle Childhood. Three sem hours**

Attitudes, knowledge and skills related to working with children ages 5 - 12 in the family environment is the main focus of the course. Topics such as the effects of culture, peer influences, growth and development and guidance as they relate to the 5 - 12 year old in both the family environment and society.

Prereq: *EDP 320 Human Growth and Development or equivalent.*

**HEC 307 Child Development Laboratory. One sem hour**

Practicum experience with pre-school children at the Children's Center. Emphasis on the student's acquiring competence in observing and guiding young children.

Prereq: *Junior standing, permission of the department; open to any major with exception of Home Economics Education and Family Life Education.*

**HEC 309 Residential Design. Three sem hours**

An analysis of residential design problems. Emphasis will be on the "design process" involved in interior design systems; working with spatial relationships and user needs, sources and current literature in the interior design field. Includes pricing structure, color, finishes, materials, lighting and furniture construction. Laboratory included.

Prereq: *HEC 235 Textiles for Consumers, HEC 275 Presentation Techniques, IT 229 Architectural Drawing II.*

**HEC 310 Contract Design. Three sem hours**

An introduction to the contract interior design process, techniques and materials. Students will be involved with the techniques to gather, process and analyze information for the formulation of design solutions. Laboratory time will be used to solve problems in the contract design field. Laboratory included.

Prereq: *HEC 309 Residential Design.*

**HEC 312 Community Nutrition. Three sem hours**

Study of environmental, cultural and economic influences on food consumption patterns of groups. Survey of nutrition programs of federal, state and local agencies. Emphasis on planning, assessing, implementing and evaluating nutrition programs in supervised clinical experiences. *Open only to dietetics students.*

Prereq: *HEC 202 Human Nutrition and HEC 211 Food Science.*

**HEC 314 Infant Care and Guidance. Three sem hours**

The home as a center for the nurture and development of infants and toddlers (conception to 2½ years) with particular emphasis on the dynamics of the parent-child relationship. Concurrent registration in 315 Child Development Lab II required.

Prereq: *HEC 214 Living with Children or permission of the department.*

**HEC 315 Child Development Lab. II: Infancy. One sem hour**

Observation of infant growth and development; participation with children under 2½ years at the Children's Center. Taken concurrently with 314.

**HEC 322 Family Financial Management. Three sem hours**

The student will study 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.

Prereq: *HEC 112 Introduction to Consumer Affairs or permission of the department; ECO 201 Principles of Economics is recommended.*

**HEC 345 Fashion Merchandising. Three sem hours**

Examination of the merchandising functions of fashion buying with emphasis on the various forms used to plan, execute and evaluate merchandise control.

Prereq: *HEC 245 Fashion Analysis.*

**HEC 350 Historic Near Environment. Two sem hours**

The evolution of the dominant influences and characteristics of historical interiors, furniture, ornamental design and architecture from prehistoric time to the mid-nineteenth century.

Prereq: *Junior standing or permission of the department.*

**HEC 351 Historic Near Environment Laboratory. One sem hour**

Designing interior spaces through the integration of historic elements to selected interior design problems.

Prereq: *HEC 275 Presentation Techniques.*

**HEC 352 Contemporary Near Environment.** Two sem hours  
Study of the evolution of the dominant influences and characteristics of the 19th and 20th century interiors, furniture, and architecture.

Prereq: Junior standing or permission of department.

**HEC 353 Contemporary Near Environment Laboratory.** One sem hour

Designing interior spaces through the integration of 19th and 20th century elements to selected interior design problems.

Prereq: HEC 275 Presentation Techniques.

**HEC 361 Issues in Family Life.** Three sem hours

Analysis of the impact of crisis situations which are significant in their effects on family members. Resources for resolving critical problems with emphasis on preservation of stability, security and constructive approaches.

Prereq: HEC 209 Marriage and Interpersonal Competence; junior or senior standing.

**HEC 370 Methods and Materials in Consumer and Home Economics Education.** Two sem hours

Responsibilities of home economics teachers, group planning of curriculum, units of work, interrelations of home economics education programs and the total school and community. Not open to graduate students for graduate credit.

Prereq: EDP 320 Human Growth and Development; or coreq: CUR 326 School and Society and junior standing.

**HEC 371 Resources in Teaching Consumer and Home Economics Education.** Two sem hours

Responsibilities of consumer and home economics teacher, selection of appropriate resources and learning strategies for secondary programs, relationship of evaluation techniques to total program.

Prereq: HEC 370 Methods and Materials in Consumer and Home Economics Education.

**HEC 372 Methods and Resources in Child Development Centers.** Three sem hours

Curriculum and program planning for guiding groups of young children; planning for the secondary pupil or the para-professional to work with pre-school children. Concurrent registration in HEC 373 Child Development Lab. III required.

Prereq: HEC 214 Living with Children and HEC 314 Infant Care and Guidance.

**HEC 373 Child Development Lab. III.** One sem hour

Planning and carrying out learning activities with young children at the Children's Center. To be taken concurrently with 372 Methods and Resources in Child Development Centers.

**HEC 375 Resources in Teaching Family Life Education.** Two sem hours

Planned to help students identify and use a wide variety of educational resources. Students will have an opportunity to formulate a personal philosophy of family life education, and develop competence in program planning. They will also learn how to use communication skills needed to facilitate learning, to design and implement instructional plans, and to plan how to use evaluation processes as a vital part of the teaching/learning environment.

Prereq: EDP 320 Human Growth and Development or coreq: CUR 326 School and Society, and HEC 370 Methods and Materials in Consumer and Home Economics Education.

**HEC 380 Fashion of the Haute Couture.** Three sem hours  
A detailed study of twentieth century American and European fashion and its relationship to identifiable costumes of the past with emphasis on the Haute Couture.

Prereq: HEC 245 Fashion Analysis and HEC 303 Interdisciplinary Study of Clothing.

**HEC 384 Clinical Dietetics I.** Three sem hours

Study of nutritional status assessment, medical record interpretation and patient information systems. Consultation with patients on routine diets in health care facilities. Supervised clinical experiences. Open only to dietetics students.

Prereq: HEC 301 Orientation to Dietetics and HEC 312 Community Nutrition.

**HEC 390 Demonstration Methods.** Three sem hours

Principles and procedures for demonstrations to be used in teaching and in the business areas. Actual experiences through laboratory participation.

**HEC 392 Pattern Design.** Three sem hours

Principles of pattern making and special problems in clothing construction and design.

Prereq: 302 Experimental Clothing.

**HEC 394 Food Systems Management I.** Three sem hours

Introduction to food systems management with emphasis on sanitation, safety, equipment selection and operation, food purchasing, receiving, storage and personnel management. Supervised clinical experience. Open only to dietetics students.

Prereq: 301 Orientation to Dietetics, 382 Introduction to Management, and 328 Introductory Microbiology.

**HEC 400 The Family in Environment.** Two sem hours

An interdisciplinary approach to the study of the reciprocal relationships of families and their physical, social, economic and political environments.

Prereq: HEC 200 The Family as Environment; junior or senior standing.

**HEC 402 Nutrient Metabolism.** Three sem hours

Discussion of the biochemical functions of essential nutrients, and their relationship to health. Emphasis on methods of evaluating nutritional status.

Prereq: HEC 201 Nutrition for the Family or HEC 202 Human Nutrition and CHM 351 Introductory Biochemistry.

**HEC 404 Textile Testing.** Three sem hours

Chemical and physical testing of textile products with emphasis on laboratory techniques, standards and interpretation of data for consumer use.

Prereq: HEC 235 Textiles for Consumers.

**HEC 407 Administration and Supervision in Child Development Centers.** Three sem hours

Analysis of the administrator's role in child development child care programs. Applications of philosophy and management skills to operate preschool programs. Acquisition of knowledge about supervision, safety, licensing and other regulations.

Prereq: HEC 314 Infant Care and Guidance. Can be taken concurrently with HEC 372 Methods and Resources in Child Development Centers.

**HEC 411 Food Investigation.** **Three sem hours**  
Application of experimental method to the study of food with emphasis given to research techniques in measuring quality and components of foods.  
Prereq: HEC 211 Food Science and CHM 120 Organic Chemistry or equivalent.

**HEC 412 Nutrition of the Life Cycle.** **Three sem hours**  
Study of factors determining nutrient requirements for each of the physiological age groups during the life cycle.  
Prereq: HEC 201 Nutrition for the Family, or HEC 202 Human Nutrition, or permission of the department.

**HEC 413 Experiences with Children.** **Four sem hours**  
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: HEC 372 Methods and Resources in Child Care.

**HEC 415 Diet and Disease.** **Three sem hours**  
Study of diet in the treatment of abnormal metabolic and disease states.  
Prereq: HEC 402 Nutrient Metabolism, CHM 351 Introductory Biochemistry, ZOO 326 Human Physiology.

**HEC 416 Contemporary Issues in Nutrition.** **Three sem hours**  
Assessment of nutrition controversies, issues and problems of local, national and world significance.  
Prereq: HEC 201 Nutrition for the Family or HEC 202 Human Nutrition.

**HEC 422 Seminar in Child Development.** **Two sem hours**  
Critical analysis of selected readings and research in child development, with interpretations for implementation in child development centers.  
Prereq: HEC 214 Living With Young Children.

**HEC 435 Foods and Nutrition Seminar.** **Two sem hours**  
Critical evaluation of current topics of foods and nutrition.  
Prereq: Seniors in dietetics or foods in business specialization.

**HEC 437 Professional Seminar.** **Three sem hours**  
Exploration and discussion of the professional aspects of fashion merchandising, with interpretation and implementation. Presentation of a fashion-related enterprise.  
Prereq: HEC 345 Fashion Merchandising.

**HEC 439 Fashion Markets.** **Two sem hours**  
Comprehensive overview of the world fashion markets with emphasis on their development, operation and contribution; includes a trip to one fashion-related market.  
Prereq: 85 hours and permission of the department.

**HEC 443 Merchandising of Home Furnishings.** **Three sem hours**  
Study of the professional skills and systems essential to buying and merchandising of home furnishings in the retail store. Special emphasis on practical problems and situations.  
Prereq: HEC 345 Fashion Merchandising.

**HEC 445 Advanced Residential Design.** **Three sem hours**  
Provides opportunity for the simulation of the professional interior designer's task of defining and satisfying a client's needs. Includes the further analysis of user needs, spatial relationships, color, finishes, materials, and lighting, and pricing structure. Laboratory included.  
Prereq: HEC 310 Contract Design.

**HEC 447 Advanced Contract Design.** **Three sem hours**  
Provides an opportunity to work on actual contract design projects. Programming, group effort, client relationships, and the contract design process are emphasized. The ability to utilize advanced graphic techniques is required for presentations. Laboratory included.  
Prereq: HEC 310 Contract Design and HEC 445 Advanced Residential Design.

**HEC 460 Tailoring.** **Three sem hours**  
Fundamental construction processes and special techniques applied to the construction of tailored garments; alterations and adaptations.  
Prereq: HEC 302 Experimental Clothing or equivalent.

**HEC 461 Family Interaction.** **Three sem hours**  
Consideration of the intricate and complex nature of family interaction. The family as a system will be studied to develop a conceptual framework for intervention through education or counseling by those who desire to assist families in their development.  
Prereq: Nine hours in family relations-child development.

**HEC 472 The Consumer and Ecology.** **Three sem hours**  
A study of the consumer's relationship to and impact on conservation, energy use and legislation and management of resources.  
Prereq: HEC 112 Introduction to Consumer Affairs, and ECO 201 Principles of Economics or permission of department.

**HEC 473 Consumer Behavior and Problems in the Family.** **Three sem hours**  
An indepth exploration of the effects of consumer wants, consumer vs. producer interests and marketing processes on consumer behavior and family decision-making.  
Prereq: HEC 112 Introduction to Consumer Affairs and ECO 201 Principles of Economics or permission of department.

**HEC 474 Seminar in Consumer Issues.** **Two sem hours**  
Critical analysis and evaluation of current vital issues for consumers.  
Prereq: Junior, senior or graduate student in Consumer Affairs specialization or permission of the department.

**HEC 477, 478, 479 Special Topics in Home Economics.** **One, two, three sem hours**  
An experimental course designed to investigate specific topics of concern in specialization areas of home economics.  
Prereq: Permission of the department.

**HEC 484 Clinical Dietetics II.** **Four sem hours**  
Development, implementation and evaluation of nutritional care plans for individuals requiring modified diets. Supervised clinical experiences. Open only to dietetics students.  
Prereq: HEC 384 Clinical Dietetics I.

**HEC 485 Clinical Dietetics III.** **Five sem hours**  
Formulation, implementation, and evaluation of nutritional care plans for individuals with abnormal nutrient metabolism. Supervised clinical experiences. Open only to dietetics students.  
Prereq: HEC 484 Clinical Dietetics II.

**HEC 487 Field Experience in Home Economics.** **Three sem hours**  
Supervised field experiences working with family and social agencies and/or businesses in the area of specialization emphasizing professional competencies and self-evaluation. Sections of course offered for specialization areas as needed.  
Prereq: Permission of the department.



**HEC 490 Special Work (Honors Course). One sem hour**

**HEC 491 Special Work (Honors Course). Two sem hours**  
 Designed to provide additional experiences for promising seniors making a more detailed 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.

**HEC 494 Food Systems Management II. Three sem hours**  
 Application of supervisory processes to food service systems with emphasis on cost and quality control in food production and labor management. Supervised clinical experience. Open only to dietetics students.  
 Prereq: 394 Food Systems Management I and 384 Personnel Management.

**HEC 495 Food Systems Management III. Five sem hours**  
 Emphasis on administrative functions of food systems management such as assessing, planning, decision making, evaluating and training. Study of communication, stress control, and behavior management. Open only to dietetic majors.  
 Prereq: HEC 494 Food Systems Management II.

**HEC 497, 498, 499 Directed Study. One, two, three sem hours**  
 Opportunity for qualified senior students to carry on an intensive study of project in their area of specialization.  
 Prereq: Permission of the department.

**CHILD CARE GUIDANCE SERVICES MINOR**

Adviser Chairperson, **Judith Williston**  
 (487-2490)  
 Home Economics Department  
 (24\* semester hours)

	Semester Hours
Required Courses .....	21
HEC 214 Living with Children .....	3
HEC 215 Child Development Lab I: .....	1
HEC 314 Infant Care and Guidance .....	3
HEC 315 Child Development Lab II: .....	1
HEC 372 Methods and Resources In Child Development Centers .....	3
HEC 373 Child Development Lab III: .....	1
HEC 407 Administration and Supervision in Child Development Centers .....	3
HEC 413 Experiences with Children .....	4
HEC 422 Seminar in Child Development .....	2
Electives chosen from the following .....	3
HEC 109 Interpersonal Relations .....	2
HEC 201 Nutrition for the Family .....	3
HEC 209 Marriage and Interpersonal Competence .....	3
SGN 251 Education of the Exceptional Child .....	2
or elective approved by Child Development adviser	

Students who will qualify for the secondary provisional teaching certificate may choose this minor to earn the endorsement in Occupational Child Care and Guidance. An additional 2000 hours of relevant supervised experience with young children is required.

**CLOTHING AND TEXTILES MINOR**

Adviser Chairperson, **Mary M. Krieger**  
 (487-2490)  
 Home Economics Department  
 (24 semester hours)

	Semester Hours
Required Courses .....	12
HEC 114 Clothing for Consumers .....	3
HEC 235 Textiles for Consumers .....	3
HEC 245 Fashion Analysis .....	3
HEC 118 Clothing Principles .....	3
Electives chosen from the following must include at least one from each of the groups .....	12
Construction Skills	
HEC 302 Experimental Clothing .....	3
HEC 392 Pattern Design .....	3
HEC 460 Tailoring .....	3
Methodology	
HEC 390 Demonstration Methods .....	3
HEC 499 Directed Studies .....	3
Social-Psychological-Historical	
HEC 303 Interdisciplinary Study of Clothing .....	3
HEC 380 Fashion of the Haute Couture .....	3
Textiles Application	
HEC 119 Early American Textiles .....	3
HEC 404 Textiles Testing .....	3
HEC 443 Merchandising of Home Furnishings .....	3

This is a non-teaching minor except as a part of the curriculum for teachers of Consumer Home Economics Education.

**CONSUMER HOME ECONOMICS EDUCATION**

Curriculum for Teachers of Consumer Home Economics Education

**Bachelor of Science Degree**

**Secondary Provisional Certificate Vocational Consumer Home Economics Endorsement**

Adviser Chairperson, **Mary Krieger**  
 (487-2490)

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

After meeting both Basic Studies and curriculum requirements students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	Semester Hours
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
Group II Science and Mathematics .....	12
CHM 105 Survey of Chemistry .....	5
PHY 115 Physics in the Modern Home .....	4
PSY 101 General Psychology .....	3
Group III Social Sciences .....	9-12
One course in American government selected from:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
One course in history.	
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
Humanities .....	12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
HEC 105 Integrated Arts .....	3
Group IV Education .....	24
EDP 320 Human Growth and Development .....	4
CUR 326 School and Society .....	6
HEC 370 Methods and Materials in Teaching Consumer and Home Economics Education .....	2
HEC 371 Resources in Teaching Consumer and Home Economics Education .....	2
CUR 418 Seminar in Education .....	2
EDU 492 Student Teaching .....	8
Group VI Practical Arts (Home Economics Major) .....	37
Foundation Courses .....	4
HEC 200 The Family as Environment .....	2
HEC 400 The Family in Environment .....	2
Application Courses (Consumer Home Economics Education) .....	39
Select at least two courses from each area.	
Clothing and Textiles	
HEC 114 Clothing for Consumers .....	3
*HEC 118 Clothing Principles .....	3
*HEC 235 Textiles for Consumers .....	3
HEC 302 Experimental Clothing .....	3
HEC 303 Interdisciplinary Study of Clothing .....	3
HEC 392 Pattern Design .....	3
Consumer Affairs and Education	
*HEC 112 Introduction to Consumer Affairs .....	3
*HEC 271 Household Equipment .....	3
*HEC 285 Home Management .....	3
*HEC 322 Family Financial Management .....	3
HEC 472 The Consumer and the Ecology .....	3
Family Life and Child Development	
HEC 109 Interpersonal Relations in the Family .....	2
*HEC 209 Marriage and Interpersonal Competence .....	3
*HEC 214 Living with Children .....	3
*HEC 215 Child Development Lab I .....	1
HEC 314 Infant Care and Guidance .....	3

HEC 315 Child Development Lab II .....	1
HEC 361 Issues in Family Life .....	3
Foods and Nutrition	
HEC 102 Family Food Management .....	2
*HEC 113 Family Health Care .....	2
*HEC 116 Foods for Consumers .....	3
*HEC 201 Nutrition for the Family .....	3
HEC 251 Meal Management .....	3
HEC 412 Nutrition of the Life Cycle .....	3
Interior Design and Housing	
*HEC 208 Basic Interior Design .....	3
*HEC 269 Ecological View of Housing .....	3
HEC 350 Historic Near Environment .....	2
HEC 352 Contemporary Near Environment .....	2
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Electives .....	20-16
Total .....	124

Students on this program must select a minor of 20-24 hours. Clothing and Textiles, Child Care Guidance Services, Family Life, or Nutrition are recommended minors.

## CURRICULUM FOR CONSUMER SERVICES

### Bachelor of Science Degree

Adviser Chairperson, Gwendolyn Reichbach  
(487-2490)  
Home Economics Department

The consumer services curriculum provides an interdisciplinary academic program supported by a home economics base which emphasizes the basic decision-making and consuming unit in society - the family. By drawing upon course offerings of various departments within the University, the program integrates both breadth of consumer concerns and depth of knowledge necessary to assist the family and individual in becoming competent, responsible consumers.

There is a marked need for professionally trained people in the field of Consumer Services. Career opportunities in Foods in Business include food industry technology, cafeteria or restaurant management, food demonstrator, food service supervisor, or consumer service representative. Among the career possibilities in consumer management are government agencies, such as U.S. Department of Agriculture; Cooperative Extension Service, or Attorney General's Office; social service agencies; or businesses, such as utility company consumer service representative, retailing, or corporate consumer consultant.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

\*Indicates courses which will meet minimum requirements for Vocational Secondary Endorsement in Consumer Home Economics Education.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	<b>Semester Hours</b>
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
ENG 215 Journalism or	
ENG 325 Expository Writing .....	3
Group II Science and Mathematics .....	10-12
One laboratory science course.	
A second laboratory science course or a course in mathematics.	
An elective course in Group II.	

Note: Foods in Business requires CHM 119 Fundamentals of Chemistry and CHM 120 Fundamentals of Chemistry or CHM 131 General Chemistry I, CHM 270 Organic Chemistry, CHM 271 Organic Chemistry, Laboratory; and BIO 105 Biology and the Human Species.

Group III Social Sciences .....	12
One course in history.	
PLS.112 American Government or	
PLS 202 State and Local Government .....	3
ECO 201, 202 Principles of Economics .....	6
Humanities .....	12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
HEC.105 Integrated Arts .....	3
Group VI Practical Arts	
(Consumer Services Major) .....	51
Foundation Courses .....	4
HEC 200 The Family as Environment .....	2
HEC 400 The Family in Environment .....	2
Application Courses .....	9-13
Select at least one (1) course from each area outside the area of specialization.	
Clothing and Textiles	
HEC 114 Clothing for Consumers .....	3
HEC 116 Clothing Principles .....	3
HEC 235 Textiles for Consumers .....	3
Consumer Affairs and Education	
HEC 112 Introduction to Consumer Affairs .....	3
HEC 271 Household Equipment .....	3
HEC 285 Home Management .....	3
Family Life and Child Development	
HEC 109 Interpersonal Relations in the Family .....	2
HEC 209 Marriage and Interpersonal Competence .....	3
HEC 214 Living with Children .....	3
HEC 215 Child Development Lab I .....	1

Foods and Nutrition	
HEC 102 Family Food Management .....	2
HEC 107 Food for Man .....	2
HEC 116 Foods for Consumers .....	3
HEC 201 Nutrition for the Family .....	3
Interior Design and Housing	
HEC 208 Basic Interior Design .....	3
HEC 269 Ecological View of Housing .....	3
HEC 350 Historic Near Environment .....	2
HEC 352 Contemporary Near Environment .....	2
Professional Sequence .....	9-12
MKT 360 Principles of Marketing or	
MCT 382 Principles of Management .....	3
HEC 210 Display Techniques or	
HEC 390 Demonstration Methods .....	2-3
HEC 497, 498, or 499 Directed Study .....	1-3
SOC 105 Introductory Sociology or	
PSY 101 General Psychology .....	3

**Specialization Areas:** Minimum hours required .. 29  
Select one of the two specialization groups. Include the starred courses in the total hours required for the specialization.

Consumer Affairs	
*HEC 112 Introduction to Consumer Affairs .....	3
*HEC 285 Home Management .....	3
*HEC 322 Family Financial Management .....	3
*HEC 472 The Consumer and the Ecology .....	3
*HEC 473 Consumer Behavior and Problems in the Family .....	3
*HEC 474 Seminar in Consumer Issues .....	2
HEC 114 Clothing for Consumers .....	3
HEC 116 Foods for Consumers .....	3
HEC 201 Nutrition for the Family .....	3
HEC 235 Textiles for Consumers .....	3
HEC 269 Ecological View of Housing .....	3
HEC 271 Household Equipment .....	3
HEC 487 Field Experience in Home Economics .....	3
ACC 240 Principles of Accounting .....	3
ACC 244 Personal Tax Accounting .....	2
ADS 293 Legal Environment of Business .....	3
ADS 250 Personal Finance .....	3
INS 258 Personal Insurance Planning .....	3
INS 351 Introduction to Risk and Insurance .....	3
MGT 382 Principles of Management .....	3
MKT 360 Principles of Marketing .....	3
MKT 363 Retailing .....	3
MKT 365 Buyer Behavior .....	3
RES 210 Real Estate Principles and Practices .....	3
SOC 314 Racial and Cultural Minorities .....	3
SOC 306 The Urban Community .....	3
SOC 307 Industrial Sociology .....	3
SOC 309 Culture and Personality .....	3
SOC 310 Contemporary American Class Structure .....	3
SPH 140 Introduction to Broadcasting and Film .....	3
SPH 350 Persuasion .....	3

Foods in Business	
*HEC 116 Foods for Consumers .....	3
*HEC 201 Nutrition for the Family .....	3
*HEC 211 Food Science .....	3
*HEC 251 Meal Management .....	3
*HEC 411 Food Investigation .....	3
*HEC 435 Foods and Nutrition Seminar .....	2
*HEC 328 Introductory Microbiology .....	3
HEC 113 Family Health Care .....	2
HEC 210 Display Techniques .....	2
HEC 271 Household Equipment .....	3
HEC 390 Demonstration Methods .....	3

HEC 412 Nutrition of the Life Cycle .....	3
HEC 416 Contemporary Issues in Nutrition ...	3
HEC 487 Field Experience in Home Economics	3
ENG 215 Journalism .....	3
ENG 325 Expository Writing .....	3
MKT 360 Principles of Marketing .....	3
MGT 382 Introduction to Management .....	3
SPH 140 Introduction to Broadcasting and Film	3
SPH 350 Persuasion .....	3
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Electives .....	26-29
Total .....	124

Note: Students completing the above major will have satisfied all major and minor requirements for graduation, and no additional minor is needed. (The economics classes and English 215 or 325 are considered part of the major.)

## CURRICULUM FOR FAMILY AND CHILD DEVELOPMENT

### Bachelor of Science Degree

Adviser Chairperson, **Betty Barber**  
(487-1217)  
Home Economics Department

The objectives of the family life program include (A) developing competent high school teachers of family life courses; (B) helping to improve individual and family functioning; (C) providing interdisciplinary academic experiences that will prepare a person to pursue graduate work or to obtain employment with family service agencies.

The family life curriculum provides opportunities for the student to develop competence in and understand family interaction. Courses focus upon child development, family development and individual development of interpersonal skills essential for living in family groups. Study of the family environment in relation to technology, social change, and diversity among family systems is also provided.

Field experience courses give students the opportunity for direct contact with specific family representatives of all ages as well as total family groups.

Career opportunities for the family life specialist are in the public and private schools as a classroom teacher in elementary, secondary, or adult education; as a resource leader in community action programs; in health care facilities, and in pre-school programs working with young children and their parents.

Students who wish to teach family life must declare their teaching intent and take 24 hours in education as specified in Group IV of this curriculum.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area—Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	Semester Hours
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
Group II Science and Mathematics .....	12-13
PSY 101 or 102 General Psychology .....	3-4
CHM 105 Survey of Chemistry .....	5
PHY 115 Physics in the Modern Home .....	4
Group III Social Sciences .....	12
One history course .....	3
SOC 105 Introductory Sociology and	
One of the following: .....	6
SOC 202 Social Problems	
SOC 214 Racial and Cultural Minorities	
SOC 306 The Urban Community	
SOC 308 Social Psychology	
One course in American government selected from:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
Humanities .....	12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
HEC 105 Integrated Arts .....	3
Group IV Education .....	24
(For those desiring a Secondary Provisional Teaching Certificate)	
EDP 320 Human Growth and Development ..	4
CUR 326 School and Society .....	6
HEC 370 Methods and Materials in Consumer and Home Economics Education .....	2
HEC 375 Resources in Teaching Family Life Education .....	2
CUR 418 Seminar in Education .....	2
EDU 492 Student Teaching .....	8
Group VI Practical Arts (Family Life Major) .....	36
Foundation Courses .....	4
HEC 200 The Family as Environment .....	2
HEC 400 The Family in Environment .....	2
Application Courses .....	10-12
Select at least one (1) course in each area	
Clothing and Textiles	
HEC 114 Clothing for Consumers .....	3
HEC 118 Clothing Principles .....	3
HEC 235 Textiles for Consumers .....	3
Consumer Affairs and Education	
HEC 112 Introduction to Consumer Affairs ..	3
HEC 271 Household Equipment .....	3
HEC 285 Home Management .....	3

## CURRICULUM FOR DIETETICS

## Bachelor of Science Degree

Adviser Chairperson, **N. Annette Peel**  
(487-2490)  
Home Economics Department

Foods and Nutrition	
HEC 102 Family Food Management .....	2
HEC 107 Food for Man .....	2
HEC 116 Foods for Consumers .....	3
HEC 201 Nutrition for the Family .....	3
Interior Design and Housing	
HEC 208 Basic Interior Design .....	3
HEC 269 Ecological View of Housing .....	3
HEC 350 Historic Near Environment .....	2
HEC 352 Contemporary Near Environment ..	2
Specialization Courses .....	24-22
Required Courses (22 hours)	
HEC 109 Interpersonal Relations in the Family	2
HEC 209 Marriage and Interpersonal Competence .....	3
HEC 214 Living with Children .....	3
HEC 215 Child Development Lab I .....	1
HEC 314 Infant Care and Guidance .....	3
HEC 315 Child Development Lab II .....	1
HEC 361 Issues in Family Life .....	3
HEC 461 Family Interaction .....	3
HEC 487 Field Experience in Home Economics (Families) .....	3
Suggested additional electives to complete the 36 hour major (0-4 hours):	
HEC 303 Interdisciplinary Study of Clothing ...	3
HEC 305 Family Development: Middle Childhood	3
HEC 322 Family Financial Management .....	3
HEC 472 The Consumer and the Ecology .....	3
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Electives .....	18-16
Total .....	124

Students on this curriculum must select a minor of 20-24 hours to complete requirements for graduation.

## Family Life Minor

Administered by the Home Economics Department  
(20-24\* semester hours)

	Semester Hours
Required Courses .....	
HEC 109 Interpersonal Relations in the Family .	2
HEC 209 Marriage and Interpersonal Competence	3
HEC 214 Living with Children .....	3
HEC 215 Child Development Lab I .....	1
HEC 314 Infant Care and Guidance .....	3
HEC 315 Child Development Lab II .....	1
HEC 361 Issues in Family Life .....	3
HEC 461 Family Interaction .....	3
Electives chosen from the following: .....	
HEC 107 Food for Man .....	2
HEC 112 Introduction to Consumer Affairs .....	3
HEC 113 Family Health Care .....	2
HEC 269 Ecological View of Housing .....	3
HEC 285 Home Management .....	3
HEC 303 Interdisciplinary Study of Clothing ...	3
HEC 305 Family Development: Middle Childhood	3
HEC 322 Family Financial Management .....	3

\*Students on a curriculum for teaching who desire family life as a second teaching area will take 370 Methods and Materials in Consumer and Home Economics Education and 375 Resources in Teaching Family Life Education for a total of 24 hours.

This curriculum is a coordinated undergraduate program in general dietetics. This specialized educational program integrates academic study with clinical experience. Upon completion of the Bachelor of Science degree in dietetics, students qualify for membership in the American Dietetic Association and are eligible to take the registration examination for Registered Dietitian status. Career opportunities for the dietitian are available in hospitals; in administrative, therapeutic, or clinical situations; in industrial food service programs; in college dormitories; in teaching; or in research.

Admission to the University, even if student indicates an intention of entering the dietetics curriculum, does not guarantee admission to the dietetics program. Students must submit applications by January 15 of their sophomore year for entrance into the professional phase of the program for the following fall semester. The applicant must meet the following requirements to be considered for the program:

- a. junior standing achieved by completing 55 or more semester hours or equivalent,
- b. minimum grade point average of 2.5,
- c. satisfactory completion (C grade or above) of courses at time of application (HEC 116 Foods for Consumers; HEC 211 Food Science; BIO 105 Biology and the Human Species; CHM 131 General Chemistry I; and ECO 201 Principles of Economics I) and by time of entrance into program (HEC 202 Human Nutrition; CHM 270 Organic Chemistry; and CHM 271 Organic Chemistry Laboratory), and
- d. evidence of meeting Food Handler's Requirements.

Application forms which 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 which ranks eight parameters 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.

Effective September, 1978, students accepted into the 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 Home Economics must successfully complete (70 per cent or above) a theoretical and/or practical examination during the semester prior to the term in which the course is scheduled.

Once the students have been accepted into the program, it is assumed that they will maintain their academic status. If students receive a "D" grade in any required course in Groups II and VI after being admitted to the program, they will be informed of a need for a counseling conference. Receiving a second "D" grade in either the same or a different course in Groups II and VI will result in dismissal from the program. Receiving an "E" in any of the required courses in Groups II and VI after being admitted to the program will result in dismissal from the program.

Students must demonstrate those personal and professional qualities identified by faculty and communicated to the students early in the program as essential for successful professional practice.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail

on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	Semester Hours
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech or in library science (Group I).	
Group II Science and Mathematics .....	27
PSY 101 General Psychology .....	3
BIO 105 Biology and the Human Species .....	4
CHM 131 General Chemistry I .....	5
ZOO 326 Human Physiology .....	3
CHM 270 Organic Chemistry .....	4
CHM 271 Organic Chemistry Laboratory .....	1
MIC 328 Introductory Microbiology .....	3
CHM 351 Introductory Biochemistry .....	3
CHM 352 Basic Biochemical Analysis .....	1
Group III Social Sciences .....	15
One course in American government selected from:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
One course in history.	
Two semester sequence in sociology.	
ECO 201 Principles of Economics I .....	3
Humanities .....	11-12
Two courses in literature in the English Department, or two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music, or dramatic arts or	
HEC 105 Integrated Arts .....	2-3
Group VI Practical Arts (Dietetics Major) .....	52
Foundation Courses .....	4
HEC 200 The Family as Environment .....	2
HEC 400 The Family in Environment .....	2
Application Courses .....	48
HEC 116 Foods for Consumers .....	3
HEC 202 Human Nutrition .....	3
HEC 211 Food Science .....	3
HEC 301 Orientation to Dietetics .....	2
HEC 312 Community Nutrition .....	2
HEC 384 Clinical Dietetics I .....	3
HEC 394 Food Systems Management I .....	3
HEC 402 Nutrient Metabolism .....	3
HEC 435 Foods and Nutrition Seminar .....	2
HEC 484 Clinical Dietetics II .....	4
HEC 485 Clinical Dietetics III .....	5
HEC 494 Food Systems Management II .....	3

HEC 495 Food Systems Management III .....	5
MGT 382 Introduction to Management .....	3
MGT 384 Personnel Administration .....	3
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may apply toward this requirement.	
Free electives .....	9-7
Total .....	124

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed.

## CURRICULUM FOR FASHION MERCHANDISING

### Bachelor of Science Degree

Adviser Chairperson, **B. Joy Hansen**  
(487-2490)  
Home Economics Department

The fashion merchandising major is specifically designed for students who plan to enter the business field of clothing and textiles. A clothing and textiles minor is also offered. See page 242.

It is a curriculum that offers practical career-oriented knowledge and skills as well as theoretical foundations of marketing fashion apparel and accessories. The program explores the relations between clothing and technology, ecology, society, economy and psychology. Emphasis is placed on the individual, the consumer and the fashion industry.

Learning experiences are achieved through seminars, workshops and field studies. Consultants and professionals from the retail field are an integral part of career exploration and preparation.

Career opportunities for the student in fashion are in the retailing area serving and training as store and manufacturing executives, fashion promotion and coordination directors, and fashion buyers. The home sewing industries offer positions as representatives and consultants.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting the Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	Semester Hours
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech or in library science (Group I).	
Group II Science and Mathematics .....	10-12
One laboratory science course.	
A second laboratory science course or a course in mathematics.	
PSY 101 General Psychology .....	3
Group III Social Sciences .....	9-12
One course in American government selected from:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
One course in history.	
A second course in history or a two semester sequence in economics.	
Humanities .....	12
Two courses in literature in the English Department, or two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
HEC 105 Integrated Arts .....	3
Group VI Practical Arts (Fashion Merchandising Major) .....	43
Foundation Courses .....	4
HEC 200 The Family as Environment .....	2
HEC 400 The Family in Environment .....	2
Application Courses .....	9-13
Select at least one (1) course from each area outside of the area of specialization	
Consumer Affairs and Education	
HEC 112 Introduction to Consumer Affairs .....	3
HEC 271 Household Equipment .....	3
HEC 285 Home Management .....	3
Family Life and Child Development	
HEC 109 Interpersonal Relations in the Family .....	2
HEC 209 Marriage and Interpersonal Competence .....	3
HEC 214 Living with Children .....	3
HEC 215 Child Development Lab I .....	1
Foods and Nutrition	
HEC 102 Family Food Management .....	2
HEC 107 Food for Man .....	2
HEC 116 Foods for Consumers .....	3
HEC 201 Nutrition for the Family .....	3
Interior Design and Housing	
HEC 208 Basic Interior Design .....	3
HEC 269 Ecological View of Housing .....	3
HEC 350 Historic Near Environment .....	2
HEC 352 Contemporary Near Environment .....	2
Specialization Courses .....	30
Required Courses .....	21
HEC 114 Clothing for Consumers .....	3
HEC 235 Textiles for Consumers .....	3
HEC 245 Fashion Analysis .....	3
HEC 118 Clothing Principals .....	3
HEC 303 Interdisciplinary Study of Clothing .....	3
HEC 345 Fashion Merchandising .....	3
HEC 437 Professional Seminar .....	3
Restricted Electives .....	9
HEC 119 Early American Textiles .....	3
HEC 210 Display Techniques .....	2

HEC 302 Experimental Clothing .....	3
HEC 380 Fashion of the Haute Couture .....	3
HEC 390 Demonstration Techniques .....	3
HEC 392 Pattern Design .....	3
HEC 404 Textile Testing .....	3
HEC 439 Fashion Markets .....	2
HEC 443 Merchandising of Home Furnishings .....	3
HEC 460 Tailoring .....	3
HEC 487 Field Experience in Home Economics (Fashion) .....	3
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Electives .....	40-34
Total .....	124

Students on this curriculum must complete a minor of 20-24 hours to meet graduation requirements. A marketing minor is recommended.

## CURRICULUM IN GENERAL HOME ECONOMICS

### Bachelor of Science Degree

Adviser Chairperson, **Janet Roland**  
(487-1217)  
Home Economics Department

This curriculum is designed to give a broad general training in all phases of home economics with a minor and electives in a field of the student's special interest. Students who wish to teach Home Economics should see the Curriculum for Teachers of Consumer Home Economics Education on page 242.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

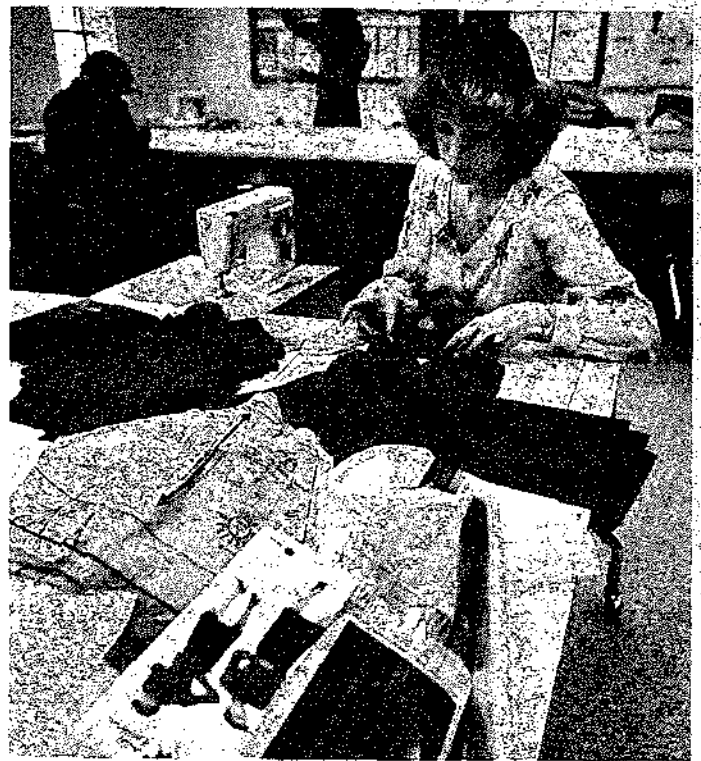
In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.

	Semester Hours
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I)	
Group II Science and Mathematics .....	12
CHM 105 Survey of Chemistry .....	5
PHY 115 Physics in the Modern Home .....	4
PSY 101 General Psychology .....	3

Group III Social Sciences	9-12
One course in American government selected from: PLS 112 American Government or PLS 202 State and Local Government	3
One course in history. A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
Humanities	12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses. One course in philosophy or religion. HEC 105 Integrated Arts	3
Group VI Practical Arts (Home Economics Major)	36
Foundation Courses	4
HEC 200 The Family as Environment	2
HEC 400 The Family in Environment	2
Application Courses	32
Select at least two (2) courses from each area.	
Clothing and Textiles	
HEC 114 Clothing for Consumers	3
HEC 118 Clothing Principles	3
HEC 235 Textiles for Consumers	3
HEC 302 Experimental Clothing	3
HEC 303 Interdisciplinary Study of Clothing	3
HEC 392 Pattern Design	3
Consumer Affairs and Education	
HEC 112 Introduction to Consumer Affairs	3
HEC 271 Household Equipment	3
HEC 285 Home Management	3
HEC 322 Family Financial Management	3
HEC 472 The Consumer and the Ecology	3
Family Life and Child Development	
HEC 109 Interpersonal Relations in the Family	2
HEC 209 Marriage and Interpersonal Competence	3
HEC 214 Living with Children	3
HEC 215 Child Development Lab I	1
HEC 361 Issues in Family Life	3
Foods and Nutrition	
HEC 102 Family Food Management	2
HEC 116 Foods for Consumers	3
HEC 201 Nutrition for the Family	3
HEC 113 Family Health Care	2
HEC 251 Meal Management	3
HEC 412 Nutrition of the Life Cycle	3
Interior Design and Housing	
HEC 208 Basic Interior Design	3
HEC 269 Ecological View of Housing	3
HEC 350 Historic Near Environment	2
HEC 352 Contemporary Near Environment	2
Group VII Physical Education and Health	2
Physical education activity courses	2
Note: Two semester hours of military science may be applied toward this requirement.	
Electives	45-41
Total	124



### GENERAL HOME ECONOMICS MINOR

Adviser Chairperson, Mary Krieger  
(487-2490)  
Home Economics Department  
(20-24\*\* semester hours)

	Semester Hours
Required Courses	2
HEC 200 The Family as Environment	2
Electives chosen from the following must include at least one course from each of the groups	18
Clothing and Textiles	
HEC 118 Clothing Principles	3
HEC 235 Textiles for Consumers	3
HEC 302 Experimental Clothing	3
Consumer Affairs and Education	
HEC 112 Introduction to Consumer Affairs	3
HEC 271 Household Equipment	3
HEC 285 Home Management	3
Family Life and Child Development	
HEC 209 Marriage and Interpersonal Competence	3
HEC 214 Living with Children	3
HEC 215 Child Development Lab I	1
Foods and Nutrition	
HEC 116 Foods for Consumers	3
HEC 201 Nutrition for the Family	3
Interior Design and Housing	
HEC 208 Basic Interior Design	3
HEC 269 Ecological View of Housing	3

\*\*Students with a major in another area of secondary teaching who want home economics as a second teaching area will take 370 Methods and Materials in Consumer and Home Economics Education and 371 Resources in Teaching Consumer and Home Economics Education for a total of 24 hours. Family life education majors with a home economics minor will take 371 Resources in Teaching Consumer and Home Economics Education for a total of 22 hours.

\*Students in the curriculum in General Home Economics should select their minor from Child Care Guidance Services, Family Life, or Nutrition.



# CURRICULUM FOR INTERIOR DESIGN AND HOUSING

## Bachelor of Science Degree

Adviser Chairperson, **Deborah DeLaski-Smith**  
(487-2490)

Home Economics Department

The Interior Design and Housing curriculum is interdisciplinary in nature. It emphasizes creative problem-solving in the area of human environment relationships and aims to prepare students to become professional designers. As a result of the total program, the students should develop a philosophical framework that includes concern for the quality of life and environmental needs of all social groups. The program includes study of the systems approach to problems, the social and psychological effects of the near environment, and space planning and programming. The students should be knowledgeable about, but not dominated by, market conditions and technical concerns.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area - Groups I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed.

After meeting both Basic Studies and curriculum requirements, students must then complete enough electives to total at least the minimum 124 hours required for graduation.

	<b>Semester Hours</b>
<b>Group I Language</b> .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech or in library science (Group I).	
<b>Group II Science and Mathematics</b> .....	10-12
One laboratory science course.	
A second laboratory science course or a course in mathematics.	
One elective course in Group II.	
<b>Group III: Social Sciences</b> .....	9-12
One course in American government selected from	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
One course in history.	
A second course in history or a two semester sequence in sociology-cultural anthropology or economics or geography (Group III).	
<b>Humanities</b> .....	12
Two courses in literature in the English Department, or two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
HEC 105 Integrated Arts .....	3

<b>Group VI Practical Arts (Interior Design Major)</b> .....	56-58
Foundation courses .....	4
HEC 200 The Family as Environment .....	2
HEC 400 The Family in Environment .....	2
Application courses .....	10-12
Select at least one (1) course from each area outside of your specialization	
<b>Clothing and Textiles</b>	
HEC 114 Clothing for Consumers .....	3
HEC 118 Clothing Principles .....	3
HEC 235 Textiles for Consumers (Recommended Course) .....	3
<b>Consumer Affairs and Education</b>	
HEC 112 Introduction to Consumer Affairs .....	3
HEC 271 Household Equipment (Recommended Course) .....	3
HEC 285 Home Management .....	3
<b>Family Life and Child Development</b>	
HEC 109 Interpersonal Relations in the Family .....	2
HEC 209 Marriage and Interpersonal Competence .....	3
HEC 214 Living with Children .....	3
HEC 215 Child Development Lab I .....	1
<b>Foods and Nutrition</b>	
HEC 102 Family Food Management .....	2
HEC 107 Food for Man .....	2
HEC 116 Foods for Consumers .....	3
HEC 201 Nutrition for the Family .....	3
<b>Specialization Courses</b> .....	42
*HEC 208 Basic Interior Design .....	3
*HEC 235 Textiles for Consumers .....	3
*HEC 269 Ecological View of Housing .....	3
*HEC 275 Presentation Techniques .....	3
*HEC 309 Residential Design .....	3
*HEC 310 Contract Design .....	3
*HEC 350 Historic Near Environment .....	2
*HEC 351 Historic Near Environment Laboratory .....	1
*HEC 352 Contemporary Near Environment .....	2
*HEC 353 Contemporary Near Environment Laboratory .....	1
*HEC 445 Advanced Residential Design .....	3
*HEC 447 Advanced Contract Design .....	3
*IT 127 Basic Architectural Drawing .....	3
*IT 128 Architectural Drawing I .....	3
*IT 229 Architectural Drawing II .....	3
HEC 210 Display Techniques .....	2
HEC 390 Demonstration Methods .....	3
HEC 443 Merchandising of Home Furnishings .....	3
HEC 487 Field Experience in Home Economics (Interior Design) .....	3
ENG 215 Journalism .....	3
MKT 360 Principles of Marketing .....	3
MKT 363 Retailing .....	3
MKT 369 Advertising .....	3
RES 210 Real Estate Principles .....	3
BOT 209 Ornamental Plants .....	2
<b>Group VII Physical Education and Health</b> .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may apply toward this requirement.	
<b>Electives</b> .....	27-19
<b>Total</b> .....	124

A minor in fine arts (see HEC adviser), general business, historic preservation, industrial technology management or marketing is recommended.

\*These are required courses on the major. Students select enough additional listed electives to total 56 hours in Group VI and other specialization courses.

# MEDICAL TECHNOLOGY

Director: Lois A. Beerbaum  
 Assistant Professor: Edna Jackson  
 Lecturer: Mary Lescoe

There are two versions of the Medical Technology Program, both leading to the Bachelor of Science degree. These are the generic and degree completion programs. Students interested in either should read carefully both the program requirements and admission procedures to be found on pages 252 and 253.

Courses regularly offered under the MTP Medical Technology prefix are as follows.

## COURSES

New courses are identified with a bullet •.

**MTP 101 Introduction to Medical Technology and Nuclear Medicine Technology. One sem hour**

This course is designed to give medical technology and nuclear medicine technology students an overview of the professions, the fundamentals in hospital function and professional relationships, as well as information on wage and salary benefits and legal issues pertinent to the professions.

**MTP 400 Pathophysiology. Three sem hours**

This course studies disease, beginning at the cellular level and following through each organ system in the body. Pathological processes will be identified and related to the chemical and biological testing performed daily in the clinical laboratory. Prereq: ZOO 201 and 202 Human Anatomy and Physiology or ZOO 326 Human Physiology or BIO 320 Introduction to Cell Physiology.

**MTP 401 Professional Roles in Medical Technology. Three sem hours**

This course studies the principles of various aspects of medical technology that apply to the overall functioning of the technologist in a clinical laboratory setting. It examines management, education and computers and offers instruction in effective use of each in the clinical setting. Prereq: CHM 455 Clinical Chemistry or permission of the instructor.

**MTP 410, 411 Individualized Clinical Laboratories (MLT-LT). One sem hour each**

**MTP 412, 413 Individualized Clinical Laboratories (MLT-MT). Two sem hours each**

**MTP 414 Individualized Clinical Laboratories (MLT-MT). Three sem hours**

The individualized clinical laboratory course will allow career mobility students in medical technology to complete their clinical experience at an advanced level of instruction. The clinical experience may be in hematology, microbiology, immunology, clinical bio-chemistry, immunohematology, mycology or parasitology. Prereq: Permission of Medical Technology Program Office.

**• MTP 477, 478, 479 Special Topics in Medical Technology. One, two or three sem hours**

Advanced level courses covering specific topics in Medical Technology not discussed in any regular Medical Technology courses at this level. Prereq: Permission of the program.

## NUTRITION MINOR

Adviser Chairperson, **Annette Peel**  
 (487-2490)  
 Home Economics Department  
 (20 semester hours)

	Semester Hours
Required Courses .....	16-17
HEC 102 Family Food Management or HEC 251 Meal Management .....	2-3
HEC 107 Food for Man .....	2
HEC 116 Foods for Consumers .....	3
HEC 201 Nutrition for the Family or HEC 202 Human Nutrition .....	3
HEC 412 Nutrition of the Life Cycle .....	3
HEC 416 Contemporary Issues in Nutrition .....	3
Electives chosen from the following .....	3-4
HEC 113 Family Health Care .....	2
HEC 402 Nutrient Metabolism .....	3
HEC 487 Field Experience in Home Economics (Foods and Nutrition) .....	3
HEC 415 Diet and Disease .....	3

This is a non-teaching minor except as a part of the curriculum for teachers of Consumer Home Economics Education.

• MTP 497, 498, 499 Independent Study.

One, two or three sem hours

Independent original endeavors involving extensive library and/or laboratory work, under the guidance of a medical technology faculty member or clinical associate faculty member in affiliated School of Medical Technology.

Prereq: Permission of the department.

## MEDICAL TECHNOLOGY MAJOR (Degree Completion Program)

### Bachelor of Science Degree

The degree completion program in Medical Technology is designed for individuals who have completed an associate's degree as a Medical Laboratory Technician (MLT). After completing additional coursework at EMU, the student is eligible for a Bachelor of Science Degree in Medical Technology.

Graduation requirements for the Bachelor of Science degree in Medical Technology include:

1. Fulfillment of requirements for the baccalaureate degree at EMU:
  - (a) A major in Medical Technology is given at the completion of this program.
  - (b) A 20 semester hour minor in chemistry is inherent in the program.
  - (c) Completion of the required courses in each of the four areas of the Basic Studies. (Completion of coursework at the community college according to the MACRAO agreement also satisfies this requirement.)
2. Fulfillment of course requirements as established by the National Accrediting Agency for Clinical Laboratory Sciences includes:
  - (a) Chemistry - 16 semester hours. Organic and/or biological chemistry must be included. The organic or biochemistry must include a laboratory session. These courses should be applicable towards a major in chemistry or medical technology. Survey courses are not acceptable.
  - (b) Biological science - A minimum of 16 semester hours to include immunology and a full course in microbiology. The microbiology must include a laboratory session. The coursework in immunology may be included as a separate course or as part of another course. These courses should be applicable towards a major in biology or medical technology. Survey courses are not acceptable.
  - (c) Mathematics - A minimum of one course in college level mathematics. Suggested courses are statistics, calculus, or algebra. Remedial mathematics is not acceptable.
3. Earning not less than a total of 124 semester hours of credit (two credits of physical education activity) including the credits earned and transferred from the associate degree.
4. At least 60 semester hours are to be earned with EMU.

Presently, the following community colleges are articulated with EMU for the Degree Completion Program in Medical Technology:

- Macomb Community College
- Oakland Community College
- Kellogg Community College
- Mid-Michigan Community College
- Lake Michigan Community College
- Schoolcraft College
- Wayne County Community College

Admission requirements to the program are as follows:

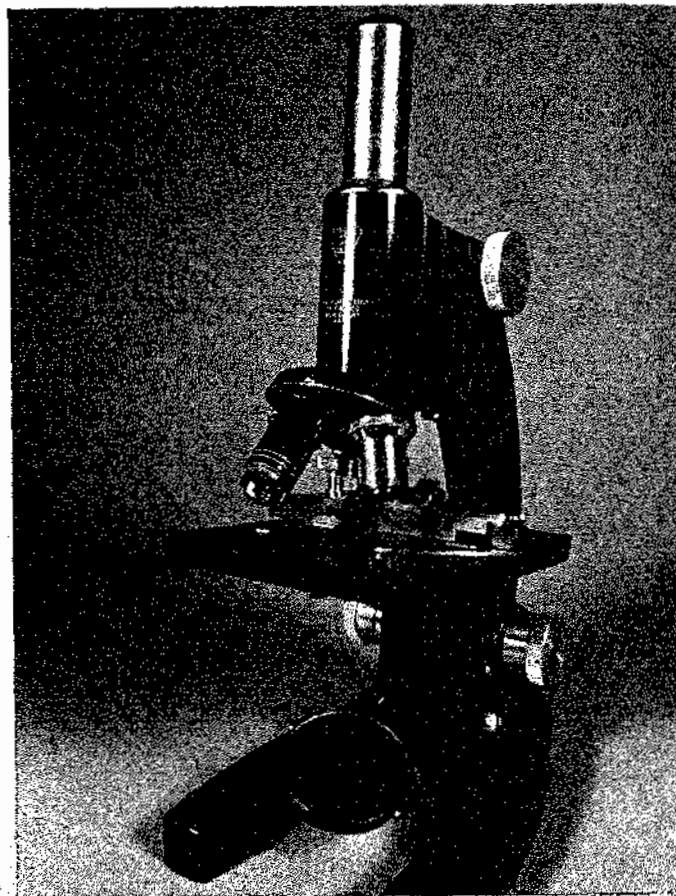
- (1) Graduation from an accredited MLT program.
- (2) Admission to Eastern Michigan University.
- (3) Before a student can enter the clinical phase of the program, he/she must provide evidence of having been certified by ADCP or NCA.

Because of variations in the MLT programs, each student who enters the clinical phase of the program will be individually advised of the exact requirements that student must follow for the completion of the program. A careful evaluation will be made of the student's previous in-school clinical courses, clinical practicum and work experiences. On the basis of this evaluation, the amount and nature of additional required clinical practicum will be determined and arranged to ensure comprehensive clinical experience and to utilize maximum benefit from all of the student's previous MLT in-school and work experience.

All students admitted to the program will be classified as "Medical Technology Completion" students. It is very important that the students be certified at the MLT level. After completing the program and receiving the baccalaureate degree in medical technology, only MLTs who are certified will be eligible to take the Medical Technologist certifying examination given by the American Society of Clinical Pathologists or the National Certifying Agency for Medical Laboratory Personnel.

Other parameters which students should be aware of are:

- (1) No student may be admitted to the clinical practicum if a grade below "C-" is received in any Biology (prefix BIO, ZOO, BOT, MIC), Chemistry (prefix CHM), or Medical Technology (prefix MTP) course.
- (2) Any student receiving a grade below "C" in a clinical practicum will not be allowed to complete the program. If such a situation occurs, the student will be advised regarding alternative degree pursuits.



## MEDICAL TECHNOLOGY

(Degree Completion Program)

Director: Lois Beerbaum

Coordinator:

(487-0154)

(The curriculum outline presented below is a "model" and illustration. Since each community college has a slightly different approach to an MLT program and basic studies requirements vary with the community college, variations will be common for students who transfer into the Degree Completion Program at EMU.)

### First Year (EMU)

	Semester Hours
<b>First Semester</b> .....	(16-17)
CHM 132 General Chemistry II .....	4
Group I Elective .....	3
History .....	3
BIO 407 Advanced Hematology .....	3
Fine arts .....	2-3
Physical Education .....	1
<b>Second Semester</b> .....	(16)
MTH 105 College Algebra .....	3
ZOO 222 General Zoology .....	4
History .....	3
CHM 270 Organic Chem. Lec. ....	4
CHM 271 Organic Chem. Lab. ....	1
Physical Education .....	1
<b>Third Semester</b> .....	(7)
Philosophy or Religion .....	3
CHM 281 Quantitative Analysis .....	4

### Second Year (EMU)

<b>First Semester</b> .....	(15)
ZOO 462 Parasitology .....	3
BIO 333 Immunology Lec. ....	3
BIO 335 Immunology Lab. ....	2
CHM 351 Biochemistry Lec. ....	3
CHM 352 Biochemistry Lab. ....	1
Literature .....	3
<b>Second Semester</b> .....	(16)
BOT 446 Medical Mycology .....	4
Literature .....	3
BIO 434 Advanced Immunohematology .....	3
MTP 402 Application of Clinical Chemistry to Pathophysiology .....	3
<b>Third and Fourth Semesters</b> .....	(7-11)
MTP 400 Pathophysiology .....	3
MTP 401 Prof. Roles in Medical Technology .....	3
MTP 410-414 Individualized Clinical Laboratories .....	1-5

## MEDICAL TECHNOLOGY

(Generic Program)

Bachelor of Science Degree

This curriculum consists of a four-year program at Eastern Michigan University. Community college students may complete two years in their college and take the third and fourth year of work at the University.

A major is allowed in Medical Technology with 36 semester hours of credit gained through an interdisciplinary format. Courses comprising the major include: BIO 333 and 335 - Immunology Lecture and Laboratory; BIO 307 and 407 - Introduction to Hematology and Advanced Hematology; BIO 334 and 434 - Immunohematology/Urinalysis and Advanced Immunohematology; MIC 432 - Clinical Microbiology; ZOO 462 - Parasitology; BOT 446 - Medical Mycology; CHM 455 - Clinical Chemistry; MTP 400 and 401 - Pathophysiology and Professional Roles in Medical Technology. Moreover, a 20 semester hour minor in biochemistry is inherent in this program. Thus, the major and minor requirements are fulfilled for graduation.

In addition, all students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies.

At least 30 semester hours of the academic program must be completed at Eastern Michigan University.

Students entering the program will be classified initially as Medical Technology "intent." Application for full admission to the program should be made during completion of the second semester of the second year of course-work.

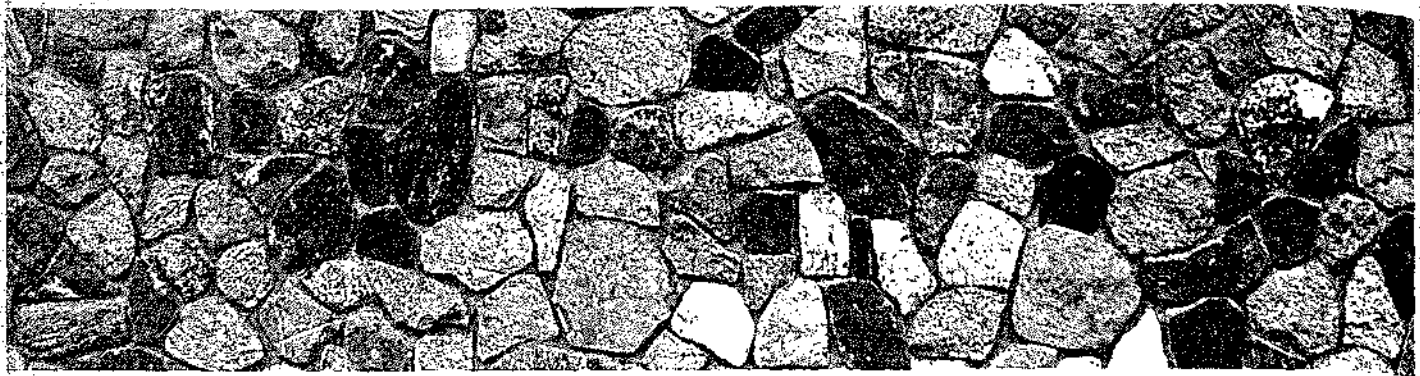
An overall GPA of at least 2.5 with no grade below "C" in any science or math course is required. The application form can be obtained from any medical technology advisor, the Medical Technology Office or the Academic Services Center. Applications must be in the Medical Technology Office by the first day of classes in any semester in order to be considered for admission to the program commensurate with the next following semester.

After acceptance into the program, each student will be advised concerning timely completion of the program. Those wishing to apply for the internship year will do so during the spring and summer between the junior and senior year. The faculty advisors will assist the students in the application process. Students are selected for internship placement through a statewide computer matching process. Completion of the Medical Technology Program does not guarantee placement in any internship program. The selection process is completed by February 1 each year with internships beginning during the month of July ONLY. Having the Bachelor of Science in Medical Technology will allow a student to apply to many more internships within Michigan and throughout the United States. There are some restrictions. Please seek advice from the medical technology faculty.

Upon completion of the internship, the student will be qualified to take the certification examination in Medical Technology. There are four certifying agencies. However, two are recommended and the student may take one or the other or both. They are: The American Society of Clinical Pathologists and the National Certifying Agency for Clinical Laboratory Personnel.

Schools of Medical Technology (internship programs) affiliated with the University are:

- Oakwood Hospital - Dearborn
- Hutzel Hospital - Detroit
- Flint Osteopathic Hospital - Flint
- McLaren General Hospital - Flint
- W.A. Foote Hospital - Jackson
- Pontiac General Hospital - Pontiac



St. Joseph Mercy Hospital – Pontiac  
 Port Huron Hospital – Port Huron  
 Providence Hospital – Southfield  
 Wayne County General Hospital – Westland

The following Schools of Medical Technology are not affiliated with the University but do consider applicants from EMU:

St. John Hospital – Detroit  
 Henry Ford Hospital – Detroit  
 Harper-Grace Hospitals  
 (Harper Division) – Detroit  
 Detroit Receiving Hospital and  
 University Health Center – Detroit  
 St. Joseph Mercy Hospital – Flint

### MEDICAL TECHNOLOGY MAJOR

(Generic Program)

Director: Lois Beerbaum  
 (487-0154)  
 Medical Technology Program

#### First Year

	Semester Hours
<b>First Semester</b> .....	(14-19)
One course in English composition or, if eligible, a foreign language .....	3-5
MTH 105 College Algebra or MTH 120 Calculus I .....	3-4
BIO 105 Biology and the Human Species or BIO 106 Orientation to Biology .....	2-4
CHM 131 General Chemistry I .....	5
MTP 401 Introduction to MT/NMT .....	1
<b>Second Semester</b> .....	(15-18)
One course in fundamentals of speech .....	2-3
PLS 112 American Government or PLS 202 State and Local Government .....	4
ZOO 222 General Zoology .....	4
CHM 132 General Chemistry II .....	4
Elective .....	2-4

#### Second Year

<b>First Semester</b> .....	(16)
PHY 221 Mechanics, Heat and Sound .....	4
CHM 270 Organic Chemistry Lec. ....	4
CHM 271 Organic Chemistry Lab. ....	1
ZOO 326 Human Physiology .....	3
Lit. or Foreign Language Lit. ....	3
Physical Education .....	1
<b>Second Semester</b> .....	(16)
PHY 222 Electricity and Light .....	4
CHM 281 Quantitative Analysis .....	4
History .....	3
MIC 329 General Microbiology .....	5

#### Third Year

<b>First Semester</b> .....	(16)
BIO 301 Genetics .....	3
Lit. or Foreign Language Lit. ....	3
Group I elective .....	3
CHM 351 Biochemistry Lec. ....	3
CHM 351 Biochemistry Lab. ....	1
PHY 256 Introduction to Electronics .....	3
<b>Second Semester</b> .....	(17)
History .....	3
*Elective .....	3
BIO 333 Immunology & Serology Lecture .....	3
BIO 335 Immunology & Serology Laboratory ..	2
Philosophy or Religion .....	3
BIO 307 Introduction to Hematology .....	3

#### Fourth Year

<b>First Semester</b> .....	(13-14)
Fine Arts .....	2-3
BIO 334 Immunohematology/Urinalysis .....	2
MIC 432 Clinical Microbiology .....	3
ZOO 462 Parasitology .....	3
MTP 400 Pathophysiology .....	3
<b>Second Semester</b> .....	(16)
BOT 446 Medical Mycology .....	4
BIO 407 Advanced Hematology or elective** ..	3
BIO Advanced Immunohematology or elective**	3
CHM 455 Clinical Chemistry .....	3
MTP 401 Professional Roles in Medical Technology or elective** .....	3
<b>Total Hours</b> .....	124-132

### Medical Technology Minor

(22 credit hours)

BIO 307 Introduction to Hematology .....	3
BIO 334 Immunohematology/Urinalysis .....	2
MIC 432 Clinical Microbiology .....	3
CHM 455 Clinical Chemistry .....	3
BIO 407 Advanced Hematology .....	3
BIO 434 Advanced Immunohematology .....	3
MTP 400 Pathophysiology .....	3
Elective(s) from one of the following .....	3
(MTP 401 Professional Roles in Medical Technology, BOT 446 Medical Mycology, ZOO 462 Parasitology, BIO 333 Immunology and Serology Lecture, BIO 335 Immunology and Serology Laboratory)	

\*This elective is available only if MTH 120 Calculus I has been taken. If MTH 105 College Algebra has been taken, MTH 107 Plane Trigonometry will be required in order to meet the prerequisite requirement for PHY 221 Mechanics, Heat and Sound.

\*\*Since these potential electives are substitutes for courses in the major, they must be selected with the approval of a medical technology advisor.

## NURSING EDUCATION

Department Head: Janet Boyd  
 Professor: Virginia Skurski  
 Associate Professors: Carolyn DeLoach, John Nikkari, Margaret Reynolds, Judith Wood  
 Assistant Professors: Joyce Campbell, Donna Eyster, Virginia Ghant, Kathleen Hawley, Leola Hogan, Betty Holbert, Jacqueline Hoop, Barbara Scheffer, Cheryl Schmidt, Mary Vanderkoik, Cathy Wrotny  
 Instructors: Marie Friedemann, Susan Valentine, Nancy Wilkening.

See the description of the nursing curriculum and the admission requirements on page 256.

### COURSES

**NUR 204 Framework for Nursing.** Six sem hours  
 A study of the concepts and skills upon which professional nursing is based. Four major content areas are explored: the nature of nursing; the interrelatedness of man and his environment; the health-illness continuum; and the health care delivery system. Basic data collection skills are learned through the use of the auto-tutorial laboratory, field studies and supervised clinical observations. Lecture: two hours per week. Recitation: two hours per week. Laboratory: four hours per week.  
 Prereq: Thirty academic credit hours and permission of the department.

**NUR 250 Nursing Science I.** Three sem hours  
 A study of the promotion of family health including teaching-learning theories. Health teaching needs of families are considered with special emphasis on prenatal care, well-child supervision and health maintenance for selected kinds of ambulatory care patients. Lecture: three hours per week.  
 Prereq: NUR 204 Framework for Nursing, ZOO 200 and 201 Anatomy and Physiology.

**NUR 251 Nursing Science I Clinical Laboratory.** Three sem hours  
 Clinical nursing practice in community clinics with emphasis on the use of the nursing process in the promotion of family health. Provision is made for students to make home visits to selected families for health teaching purposes. Laboratory: six hours per week.  
 Prereq: NUR 204 Framework for Nursing, ZOO 200 and 201 Anatomy and Physiology.

**NUR 270 Pharmacology.** Two sem hours  
 Designed to give the student a knowledge and appreciation of the fundamental principles of pharmacology including the action of drug groups on the human body and how drugs are administered, absorbed, metabolized and excreted.  
 Prereq: Permission of the department.

**NUR 304 Nursing Science II.** Three sem hours  
 Emphasis is on the needs of families facing the crisis of hospitalization. The nursing care needs of selected obstetrical and general medicine patients are considered.  
 Prereq: NUR 250 Nursing Science I, NUR 251 Nursing Science I Clinical Laboratory, ZOO 200 and 202 Anatomy and Physiology, and NUR 320 Pathology.

**NUR 305 Nursing Science II Clinical Laboratory.** Three sem hours  
 Clinical learning experiences are provided in community hospitals. Students make home visits to families with health problems. Laboratory: six hours per week.  
 Prereq: NUR 250 Nursing Science I, NUR 251 Nursing Science I Clinical Laboratory, ZOO 200 and 202 Anatomy and Physiology, and NUR 320 Pathology.

**NUR 320 Pathology.** Two sem hours  
 Designed to further student's ability to gather and assess data about patients by broadening understanding of the dysfunctions created by major physical illnesses, theories of causation and signs and symptoms of the more usual syndromes.  
 Prereq: Permission of the department.

**NUR 350 Nursing Science III.** Three sem hours  
 Focuses upon chronic illness problems in children, adults, and the elderly. Lecture: two hours per week. Recitation: one hour per week.  
 Prereq: NUR 304 Nursing Science II, NUR 305 Nursing Science II Clinical Laboratory and MIC 328 Microbiology and NUR 270 Pharmacology.

**NUR 351 Nursing Science III Clinical Laboratory.** Four sem hours  
 Clinical practice in local school systems, extended care facilities and community mental health agencies. Students make home visits to families with health problems. Laboratory: eight hours per week.  
 Prereq: NUR 304 Nursing Science II, NUR 305 Nursing Science II Clinical Laboratory, NUR 270 Pharmacology, MIC 328 Microbiology.

• **NUR 360 Gerontological Nursing.** Two sem hours  
 The course will specifically focus upon basic knowledge underlying nursing care of the elderly in the community setting (including nursing homes).  
 Prereq: Junior standing in nursing.

**NUR 370 Health Assessment.** Three sem hours  
 Familiarizes students with normal physical examination findings. Laboratory sessions provide opportunities for doing physical examinations under the guidance of the nursing faculty. Lecture: two hours per week. Laboratory: two hours per week.  
 Prereq: NUR 304 Nursing Science II, NUR 305 Nursing Science II Clinical Laboratory, MIC 328 Microbiology, and NUR 270 Pharmacology.

**NUR 404 Nursing Science IV.** Three sem hours  
 Exploration of the nurse's role in assisting hospitalized patients with serious health problems. Usual treatment modalities and concomitant nursing care responsibilities are studied. Lecture: two hours per week. Recitation: one hour per week.  
 Prereq: NUR 350 Nursing Science III, NUR 351 Nursing Science III Clinical Laboratory and NUR 370 Health Assessment.

**NUR 405 Nursing Science IV Clinical Laboratory.** Five sem hours  
 Assignment to acute care facilities to provide nursing experiences with more seriously ill persons and to orient the students to large institutions whose major responsibility is treatment of illness. Students make home visits to families with health problems. Laboratory: ten hours per week.  
 Prereq: Nur 350 Nursing Science III, NUR 351 Nursing Science III Clinical Laboratory and NUR 370 Health Assessment.

**NUR 450 Nursing Science V.** **Three sem hours**  
Introduction to the concept of the nurse as a change agent. Primary focus upon nursing research, nursing management theories, and characteristics of professionalization.  
Prereq: NUR 404 Nursing Science IV and NUR 405 Nursing Science IV Clinical Laboratory.

**NUR 451 Nursing Science V Clinical Laboratory.** **Four sem hours**  
Clinical practice in the care of clients in a county public health agency, in an acute psychiatric nursing setting and in a hospital unit management area. Laboratory: eight hours per week.  
Prereq: NUR 404 Nursing Science IV and NUR 405 Nursing Science IV Clinical Laboratory.

**NUR 477, 478, 479 Special Topics in Nursing.** **One, two and three sem hours**  
Experimental courses or special topics in nursing may be offered (to be announced).  
Prereq: Permission of the department.

**NUR 497, 498, 499 Independent Study.** **One, two and three sem hours**  
Prereq: Permission of the department.

## NURSING EDUCATION

This community-centered nursing program will enable graduates to function in a variety of settings - clinics, physicians' offices, hospitals, health maintenance organizations, public health agencies and home care coordinating agencies. Graduates of the nursing program receive a Bachelor of Science degree and are eligible to qualify as registered nurses through the Michigan State Board of Nursing licensure examination. The program is accredited by the National League for Nursing.

Admission to the University, even if students indicate an intention of entering the nursing curriculum, does not guarantee admission to the nursing program.

Prospective students should request an application from the Admissions Office, 214 Pierce Hall, early in their freshman year. The application will specify exact requirements, deadline dates, and expected notification times. Applications are due in February for admission to the subsequent fall semester.

Students are eligible for consideration for selection into the nursing program upon completion of a minimum of 30 semester hours of university credit (excluding credit for physical education activity courses), including CHM 120 Fundamentals of Chemistry, PSY 101 General Psychology, and either SOC 105 Introductory Sociology or ANT 135 Cultural Anthropology.

Nurses who are licensed to practice nursing in the State of Michigan and wish to complete a Baccalaureate Degree in Nursing are eligible for consideration for admission. Registered Nurse students follow the same admissions procedures as stated above in the Curriculum in Nursing. (See page 257) in Group VI Practical Arts. Registered Nurse students are required to register for NUR 204 and NUR 450 and NUR 451. In all other nursing courses in this group, Registered Nurse students may elect to receive credit by examination. For details registered nurse applicants may contact Leola Hogan (487-2310).

The availability of clinical facilities and other considerations restrict sharply the number of students admitted to the nursing class that begins each fall semester. Admission is very competitive.

Upon acceptance into the nursing program, students must follow a structured sequence of courses in the professional phase of the curriculum. Any elective or other course selected must fit in around the core of professional courses.

Students should plan carefully for the demanding nature of this professional part of the nursing program and the extensive clinical hours required. This professional segment requires six sequential semesters of work.

Because of the rapidly changing nature of the health care field, it is necessary that graduates have current professional nursing skills and knowledge in order to practice successfully. Therefore, the following policies have been established: 1) Once admitted to the EMU Nursing Department, students must complete all nursing sequence courses NUR; including 270 Pharmacology and 320 Pathology, within a period of 4 calendar years to be considered eligible for graduation and 2) the University may give credit for nursing courses taken elsewhere; however, the Department does not accept any nursing credits as equivalents of EMU nursing courses.

The nursing department has a responsibility to the public and to the nursing profession; thus it reserves the privilege of retaining only those students who, in the judgement of the faculty, satisfy requirements of scholarship and personal suitability for nursing.

A letter grade of "D" in Group VI (exception HEC 202 Human Nutrition) automatically warns the student of difficulty and need for counseling. Throughout this paragraph, "D" includes "D+" and "D-". Another "D" in any other required course in Group VI (exception HEC 202) will result in dismissal from the nursing program. An "E" grade in a nursing course or other required course in Group II, IV or VI will result in dismissal. Opportunity to repeat the nursing course, pending an "E" or double "D" is contingent upon readmission to the program.

Since it is necessary for students to make computations in carrying out nursing procedures, students are required to pass with 70 percent mastery of the math screening exam or to take MTH 104 Intermediate Algebra prior to NUR 250 Nursing Science I.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline below, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in Group I and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below.

After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours required for graduation.



## CURRICULUM IN NURSING

## Bachelor of Science Degree

Adviser Chairperson, Janet Boyd  
(487-2310)

	Semester Hours
Group I Language . . . . .	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library sci- ence (Group I).	
Group II Science and Mathematics . . . . .	18
ZOO 201 Anatomy and Physiology . . . . .	3
ZOO 202 Anatomy and Physiology . . . . .	3
PSY 101 General Psychology . . . . .	3
CHEM 120 Fundamentals of Chemistry . . . . .	4
NUR 320 Pathology . . . . .	2
MIC 328 Introductory Microbiology . . . . .	3
Group III Social Sciences . . . . .	12
One course in history . . . . .	3
Either of the following:	
PLS 112 American Government or	
PLS 202 State and Local Government . . . . .	3
Either of the following:	
SOC 105 Introductory Sociology or	
ANT 135 Cultural Anthropology . . . . .	3
An advanced sociology or anthropology course	3
Humanities . . . . .	11-12
Two courses in literature in the English Depart- ment, two intermediate foreign language courses, or two advanced foreign language lit- erature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts.	
Group IV Education . . . . .	4
EDP 325 Life Span - Human Development . . . . .	4
Group VI Practical Arts . . . . .	48
HEC 202 Human Nutrition . . . . .	3
NUR 204 Framework for Nursing . . . . .	6
NUR 250 Nursing Science I . . . . .	3
NUR 251 Nursing Science I Laboratory . . . . .	3
NUR 270 Pharmacology . . . . .	2
NUR 304 Nursing Science II . . . . .	3
NUR 305 Nursing Science II Laboratory . . . . .	3
NUR 350 Nursing Science III . . . . .	3
NUR 351 Nursing Science III Laboratory . . . . .	4
NUR 370 Health Assessment . . . . .	3
NUR 404 Nursing Science IV . . . . .	3
NUR 405 Nursing Science IV Laboratory . . . . .	5
NUR 450 Nursing Science V . . . . .	3
NUR 451 Nursing Science V Laboratory . . . . .	4
Group VIII Physical Education and Health . . . . .	2
Physical Education Activity Courses . . . . .	2
Note: Two semester hours of military science may be applied toward this requirement.	
Electives . . . . .	21-19
Total . . . . .	124

The courses listed in Group VI Practical Arts and ZOO 201, 202 Anatomy and Physiology will satisfy University requirements for a 50-semester-hour curriculum concentration. No outside minor is needed.

## OCCUPATIONAL THERAPY

Department Head: Lyla M. Spelbring

Assistant Professors: Norma Beauchamp, Normajean Bennett, Ruth Hansen, Marie Immekus, Sherry Sayles-Folks, Yvonne Teske.

Instructors: Cynthia Creighton, Donna Heine

## COURSES

New courses are identified with a bullet •

The Occupational Therapy Curriculum and the admission and retention procedures are described on page 258.

**OT 300 Introduction to Occupational Therapy.**

**Two sem hours**

A description at an introductory level of the roles and functions of occupational therapy in providing direct and indirect health-care service. Provides a foundation for the advanced professional courses. To be taken concurrently with OT 301 — Practicum.

Prereq: Admission to the curriculum; departmental permission.

**• OT 301 Practicum in Occupational Therapy.**

**One sem hour**

An initial experience providing an opportunity for students to develop skills in observing and interacting with individuals requiring occupational therapy intervention. To be taken concurrently with OT 300 Introduction to Occupational Therapy. Prereq: Admission to the curriculum and department permission.

**OT 302 Developmental Activities.**

**Four sem hours**

A presentation of the theory, analysis and application of developmental activities used in occupational therapy intervention.

Prereq: OT 300 Introduction to Occupational Therapy. To be taken concurrently with OT 303 Conditions of Early Childhood and OT 308 Programming for Early Childhood.

**OT 303 Conditions of Early Childhood. Three sem hours**

Conditions which interrupt early childhood development and performance, and necessitate intervention, are presented. A discussion of the health-illness continuum is included.

Prereq: For OT majors - to be taken concurrently with OT 302 Developmental Activities, OT 308 Programming for Early Childhood. For non-OT majors - Introductory biology or chemistry course and an introductory psychology or sociology course.

**OT 308 Programming for Early Childhood. Six sem hours**

A presentation of the rationale and methods of evaluating the developmental status of the young child in relation to the performance of life tasks. Methods of translating the evaluation data into program plans appropriate for the young child are included.

Prereq: OT 300 Introduction to Occupational Therapy. To be taken concurrently with OT 302 Developmental Activities, OT 303 Conditions of Early Childhood.

**OT 400 Seminar in Health Care Issues. One sem hour**

Discussion of the issues covered in HAD 300 Health Care Issues as they pertain to occupational therapy.

Prereq: To be taken concurrently with HAD 300 Health Care Issues.



**OT 403 Conditions of Childhood and Adolescence.****Three sem hours**

Conditions which interrupt development and performance in later childhood and adolescence and necessitate intervention, are presented.

*Prereq:* For OT majors – OT 303 Conditions of Early Childhood, OT 308 Programming for Early Childhood. To be taken concurrently with OT 418 Programming for Childhood and Adolescence, OT 420 Fieldwork. For non-OT majors – Introductory biology or chemistry course and an introductory psychology or sociology course.

**OT 413 Conditions of Adulthood and Aging.****Three sem hours**

The impact of specific conditions on adult development and performance, necessitating intervention, is analyzed. Concepts of prevention are included.

*Prereq:* For OT majors – OT 403 Conditions of Childhood and Adolescence. To be taken concurrently with OT 419 Programming for Adulthood and Aging, OT 421 Fieldwork. For non-OT majors – Introductory biology or chemistry and an introductory psychology or sociology course.

**OT 418 Programming for Childhood and Adolescence.****Five sem hours**

Methods of evaluating the developmental status and performance of the older child and adolescent are presented. Results of evaluation methods are used to determine program plans using specific approaches.

*Prereq:* OT 303 Conditions of Early Childhood, OT 308 Programming for Early Childhood. To be taken concurrently with OT 403 Conditions of Childhood and Adolescence, OT 420 Fieldwork.

**OT 419 Programming for Adulthood and Aging.****Five sem hours**

Methods of evaluating the developmental status and performance of the adult are presented. Based on the results of the evaluation, students plan intervention programs using specific occupational therapy approaches.

*Prereq:* OT 418 Programming for Childhood and Adolescence. To be taken concurrently with OT 413 Conditions of Adulthood and Aging, OT 421 Fieldwork.

**OT 420 Fieldwork (part-time)****Two sem hours**

An experience is provided with children and/or adolescents in evaluating, planning and implementing supervised occupational therapy intervention programs.

*Prereq:* OT 303 Conditions of Early Childhood, OT 308 Programming for Early Childhood. To be taken concurrently with OT 403 Conditions of Childhood and Adolescence, OT 418 Programming for Childhood and Adolescence.

**OT 421 Fieldwork (part-time)****Two sem hours**

An experience is provided with young, middle and/or older adults in evaluating, planning and implementing supervised occupational therapy intervention programs.

*Prereq:* OT 418 Programming for Childhood and Adolescence. To be taken concurrently with OT 413 Conditions of Adulthood and Aging, OT 419 Programming for Adulthood and Aging.

**OT 489 Fieldwork (full-time)****Three sem hours**

A full-time three month experience is arranged in a selected health services agency, where the student will gain in-depth experience in evaluation and programming for occupational therapy intervention.

*Prereq:* Departmental Permission; completion of all on-campus courses.

**OT 489 Fieldwork (full-time)****Three sem hours**

A full-time three month experience is arranged in a selected health services agency, where the student will gain in-depth experience in evaluation and programming for occupational therapy intervention.

*Prereq:* Departmental Permission; completion of all on-campus courses.

**• OT 490 Fieldwork (full-time elective) Three sem hours**

Provides opportunity for occupational therapy majors to elect a fieldwork experience with special populations or in special settings other than those completed in the required placements.

*Prereq:* must have successfully completed OT 488 and OT 489 Fieldwork and have departmental permission.

## OCCUPATIONAL THERAPY

The occupational therapy curriculum leads to a baccalaureate degree in occupational therapy or to a second baccalaureate degree for candidates who have earned a prior degree. The curriculum consists of a minimum of four semesters of academic work on campus, plus six months of supervised fieldwork in affiliated agencies. Upon successful completion of the program, the graduate may be recommended to qualify for entrance by examination to the registry maintained by the American Occupational Therapy Association.

The curriculum of occupational therapy at Eastern Michigan University is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association and the Accreditation Committee of the American Occupational Therapy Association.

### 1. Application for Admission

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 Department of Occupational Therapy. Applications are available from Occupational Therapy in King Hall or from the Admissions Office in Pierce Hall.

### 2. Criteria for Admission

Admission to the occupational therapy curriculum is competitive and is based on the following:

- A minimum grade point average of 2.5 on a 4.0 scale; at least a "C" in the prerequisite courses in (b) and in any major courses taken before beginning the program.
- 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,  
SOC 105 Introductory Sociology,  
CHM 105 or 119 Fundamentals of Chemistry,  
or their equivalents.

Acceptance is provisional. Before the student actually begins the professional curriculum, evidence of successful completion of at least 55 semester credits and the following additional prerequisite courses must be completed: second level Sociology, Abnormal Psychology, a basic design course, Human Growth and Development or Child Psychology or Psychology of Development. (See the footnote to the OT curriculum on required course content covering total life span from birth to death). The prerequisite courses may be taken at this university, at another four-year college/university, or at a junior/community college.

- c. Completed information on the application form with emphasis on work/volunteer experiences with ill, handicapped or disadvantaged individuals.
- d. Volunteer/work experiences with normal people.
- e. At least two references: one or more from a supervisor of the work or volunteer experience with ill, handicapped or disadvantaged individuals, and at least one from another source.

The availability of fieldwork placements and other considerations restrict the number of students admitted to the classes which begin each fall and winter semester.

### 3. Criteria for Continuance

Continuance in the occupational therapy curriculum is based upon the following:

#### a. Scholarship:

- 1) a minimum EMU cumulative grade point average of 2.0 on a 4.0 scale must be maintained.
- 2) a grade of "D" (including "D+" and "D-") and/or "E" in two courses in the occupational therapy major may, upon recommendation by the Advisory Committee, result in dismissal from the occupational therapy program.

#### b. Demonstrated competence in

- 1) speaking effectiveness
- 2) written expression

#### c. Demonstrated responsibility for

- 1) punctuality and attendance
- 2) communication with instructors, supervisors, students
- 3) organization of time
- 4) professional appearance

#### d. 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 Group II Science courses or the Group VI Practical Arts courses within the occupational therapy curriculum.

### 4. Fieldwork Placements

A minimum of six months of supervised field experience must be successfully completed to fulfill the requirements for the baccalaureate degree and to become eligible for the National Certification Examination. Assignment to field placement is arranged and approved by the department and is by recommendation of the occupational therapy faculty. OT 488 and OT 489 are full-time placements of a minimum of three months each.

### 5. Certification Examination

The American Occupational Therapy Association (AOTA) requires successful completion of all academic requirements, fieldwork experiences and the recommendation of the faculty 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.

### 6. General Information

The professional segment of the program requires four semesters of work, plus a minimum of six months full-time field work experience. Courses in the occupational therapy major are usually offered in the fall and winter semesters only.

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 32. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

In the curriculum outline following, the usual number of Basic Studies credit hours to be completed in each group is indicated, but it is the courses that must be completed, not a minimum or maximum number of hours in Group I and Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified. After meeting both Basic Studies and curriculum requirements, students must then complete enough "free electives" to total at least the minimum 124 hours (including 2 credits in physical education activity courses) required for graduation.

## OCCUPATIONAL THERAPY CURRICULUM

### Bachelor of Science Degree

Adviser Chairperson, Lyla M. Spelbring  
(487-4094)

	Semester Hours
Group I - Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science.	
Group II - Science and Mathematics .....	34
PSY 101 General Psychology .....	3
BIO 105 Biology and the Human Species .....	4
CHM 105 or CHM 119 Fundamentals of Chemistry .....	5 or 4
*ZOO 317 Anatomy for Occupational Therapy Students .....	5
*ZOO 326 Human Physiology .....	3
*ZOO 417 Neuroanatomy .....	3
PSY 360 Abnormal Psychology .....	3
*OT 303 Conditions of Early Childhood .....	3
*OT 403 Conditions of Childhood and Adolescence .....	3
*OT 413 Conditions of Adulthood and Aging .....	3
Group III - Social Sciences .....	12
One course in history .....	3
SOC 105 Introductory Sociology .....	3
Either of the following:	
PLS 112 American Government or	
PLS 202 State and Local Government .....	3
Elective in sociology (second level or higher) .....	3
Humanities .....	11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion:	
FA 101 Introduction to Art or equivalent .....	2-3
(fulfills requirement for Group V)	

\*Completion of courses identified satisfies all major and minor requirements for graduation. No outside minors are needed.

## SOCIAL WORK

Department Head: Donald M. Loppnow  
 Associate Professor: Leroy W. Watts  
 Assistant Professors: Kaaren Brown, Fred T. Gibilisco, Joan Laird, Emily Jean McFadden, George Mink, Marguerite D. Smith, Bennie Stovall, Marjorie Ziefert  
 Lecturers: Jerry Garfield, Sarah Taggart, Nola Thomas

The requirements for the social work curriculum are given on page 263. The social work minor is described on page 264. The Family and Children's Services Specialty offered by the Department of Social Work is described on page 264.

### COURSES

New courses are identified with a bullet •

Group IV - Education .....	4
••EDP 320 Human Growth and Development (in designated OT & Nursing sections) or equivalent .....	4
Group V - Fine Arts .....	3
•FA-101 Introduction to Art .....	3
(credit assigned as Humanities requirement)	
Group VI - Practical Arts .....	39
•IED 358 Tools and Materials .....	3
•OT 300 Introduction to OT .....	2
•OT 301 Practicum in Occupational Therapy ..	1
•OT 302 Developmental Activities .....	4
•OT 308 Programming for Early Childhood ....	6
•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) .....	3
•OT 489 Fieldwork (full-time) .....	3
•OT 490 Fieldwork (full-time elective) .....	3
•HAD 300 Health Care Issues .....	2
•OT 400 Seminar in Health Issues .....	1
(taken concurrently with HAD 300)	
Group VII - Physical Education and Health .....	2
Physical Education Activity Courses .....	2
Free electives .....	13-15
Total .....	124

•Students should take EDP 325 Life Span Human Development which covers the total life span from birth to death. If the "growth and development" equivalent course taken as a prerequisite for acceptance to the OT program is not approved as including total life span content, students should consult the OT department for other recommended courses, such as SOC 317 Social Gerontology, that will provide the required content before the student enters the fourth semester of the professional OT program.

#### SWK 120 Introduction to Social Work Services and Professional Roles. Three sem hours

A broad introductory overview of the social work profession including its philosophy, values, professional roles, current trends, and models in such varied practice arenas as criminal justice, mental health, child and family services, public welfare services, as well as medical and industrial settings. There is a field observation component contained within the structure of the course.

#### SWK 222 Social Welfare Policies and Services. Three sem hours

A survey of social welfare institutions and policies in their historical and modern contexts. The focus will be on American social welfare services as related to the economic, political, and socio-cultural conditions and prevailing ideologies.

Prereq: SWK 120 Introduction to Social Work Services and Professional Roles.

#### SWK 315 Theoretical Bases for Social Work Practice. Three sem hours

This course focuses on integrating, supplementing and translating into social work practice students' knowledge of human beings and their social environments. Attention will be focused on the purposes for which the social work professional intends to use the knowledge and on the values which form the base of professional practice.

Prereq: SWK 120 Introduction to Social Work Services and Professional Roles, SWK 222 Social Welfare Policies and Services, PSY 101 General Psychology, SOC 105 Introductory Sociology and EDP 325 Life Span Human Development, or department permission. ANT 135 Introduction to Cultural Anthropology and PSY 360 Abnormal Psychology recommended.

#### SWK 317 Social Work Practice I. Three sem hours

This course is the first in a sequence of social work practice classes and is designed to prepare the student for the field experience (SWK 488-489). The focus will be on relationship building, information gathering, and preliminary assessment and contracting. Laboratory sessions will utilize experiential techniques to enable students to practice these skills and to refine interviewing techniques.

Prereq: SWK 120 Introduction to Social Work Services and Professional Roles, SWK 222 Social Welfare Policies and Services, and SWK 315 Theoretical Bases for Social Work Practice. Must be taken concurrently with SWK 388. Non-social work majors must have department permission.

**SWK 360 Practice Issues Concerning Minorities and Women. Three sem hours**

This course will analyze the validity and reliability of social work practice in the development and implementation of services to racial and ethnic minorities, and women. The course will integrate knowledge concerning minorities and women presented in prerequisite courses and apply it to social work practice.

Prereq: SWK 315 *Theoretical Bases for Social Work Practice*, SOC 214 *Racial and Cultural Minorities*, ANT 135 *Introduction to Cultural Anthropology*, an additional course relating to minorities, and one of the following: PSY 242 *Psychology of Women*, ECO 328 *Economics of Women* or SOC 444 *Sociology of Sex Roles*, or department permission.

**SWK 388 Pre-Professional Practicum. Two sem hours**

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. This course is intended 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 of social work.

Prereq: For social work majors — SWK 315 *Theoretical Bases for Social Work Practice*. Also must be taken concurrently with SWK 317 *Social Work Practice I*. For non-social work majors — junior standing, SWK 120 *Introduction to Social Work Services and Professional Roles* and department permission.

**• SWK 405 Analysis and Change of Social Welfare Policies. Three sem hours**

A study of current social policy and its intended and unintended effects on client populations. Students will develop skills in both policy analysis and strategies and methods for policy change.

Prereq: SWK 120 *Introduction to Social Work Services and Professional Roles*, SWK 222 *Social Welfare Policies and Services*, and either PLS 112 *American Government* or PLS 202 *State and Local Government*. Recommended that social work majors enroll concurrently in SWK 409 *Social Work Practice III* and SWK 488 *Field Experience I*.

**SWK 408 Social Work Practice II. Three sem hours**

This course deepens the student's understanding of the generalist conceptual framework for social work practice. The course will examine practice values, models of assessment and phases of planned sequential change.

Prereq: SOC 250 *Elementary Social Statistics*, SOC 304 *Methods in Sociological Research*, SWK 317 *Social Work Practice I*, SWK 360 *Practice Issues Concerning Minorities and Women*, and SWK 388 *Pre-Professional Practicum*. Must be taken concurrently with SWK 488 *Field Experience I*.

**SWK 409 Social Work Practice III. Three sem hours**

This course is a continuation of SWK 408 and will examine in more depth a variety of social work practice models, interventive strategies, methods, roles and skills.

Prereq: SWK 408 *Social Work Practice II* and SWK 488 *Field Experience I*. Must be taken concurrently with SWK 489 *Field Experience II*.

**SWK 418 Policies and Issues in Services to Families. Three sem hours**

A foundation course for the Family and Children's Services Specialty and also an elective for students interested in a consideration of the field. The course will survey the field of family and children's services through the process of identifying and analyzing issues crucial to the field, analyzing

policies and legislation, and critically examining programs integral to the service delivery structure.

Prereq: SWK 120 *Introduction to Social Work Services and Professional Roles* and SWK 222 *Social Welfare Policies and Services*, or department permission.

**SWK 419 Family-Centered Practice. Three sem hours**

A foundation course for the Family and Children's Services Specialty and also an elective for students interested in social work with families. Students will deepen their understanding of the family as a social/psychological system which meets the needs of both children and adults. The course enhances practice knowledge and skill in delivering services and developing resources for families at risk. In developing and implementing services to families, the prevention of placement whenever possible is seen as a primary goal.

Prereq: SWK 120 *Introduction to Social Services and Professional Roles* and SWK 222 *Social Welfare Policies and Services*, or department permission.

**SWK 420 Working with Aging People. Three sem hours**

Provides an overview of the role of the social worker in working with aged people. Special attention to 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 *Introduction to Social Work Services and Professional Roles* and SWK 222 *Social Welfare Policies and Services*, or department permission.

**SWK 422 Specialized Services for Families with Children in Placement. Three sem hours**

This course provides practice knowledge and skills in working with families where out of home placement has become necessary, and children are in foster homes, group, residential or adoptive settings. Particular attention is given to 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 will be emphasized. The goal of reunification of families — whenever possible — is primary.

Prereq: SWK 120 *Introduction to Social Work Services and Professional Roles* and SWK 222 *Social Welfare Policies and Services*, or department permission.

**SWK 424 Social Work with Physically and Mentally Handicapped. Three sem hours**

Focuses on 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 will be examined.

Prereq: SWK 120 *Introduction to Social Services and Professional Roles* and SWK 222 *Social Welfare Policies and Services*, or department permission.

**SWK 431 Substance Abuse. Three sem hours**

Current approaches to the prevention and treatment of drug and alcohol abuse will be reviewed. Special emphasis on a consideration of the physiological, psychological and social impact of substance abuse on the individual, the family, and the community, and to the role of the social worker in prevention and treatment.

Prereq: SWK 120 *Introduction to Social Work Services and Professional Roles* and SWK 222 *Social Welfare Policies and Services*, or department permission.

**SWK 435 Group Work with Children and Families.****Three sem hours**

Social group work theory and practice as a relevant way to work with children and families. Analysis of the group process as it occurs in natural groups and the effect of this process on individual behavior. Delinates techniques that can be built into the group to effect client change.

Prereq: SWK 120 Introduction to Social Work Services and Professional Roles and SWK 222 Social Welfare Policies and Services, or department permission.

- **SWK 440 Issues in Mental Health Practice.**

**Three sem hours**

This course focuses on issues in mental health practice with emphasis on deinstitutionalization, community mental health, and the role of the baccalaureate social worker.

Prereq: SWK 120 Introduction to Social Work Services and Professional Roles and SWK 222 Social Welfare Policies and Services, or department permission.

**SWK 460 The Law and Social Work with the Family.****Three sem hours**

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. The student will examine both the legal and social work perspectives in terms of client rights, needs and professional goals. Particular attention to social work practice in the family court arena.

Prereq: SWK 120 Introduction to Social Work Services and Professional Roles and SWK 222 Social Welfare Policies and Services, or department permission.

**SWK 463 Social Work Practice with Legal Offenders.****Three sem hours**

Examines the professional roles and appropriate practice skills utilized by social workers and allied professionals in working with legal offenders.

Prereq: SWK 120 Introduction to Social Work Services and Professional Roles and SWK 222 Social Welfare Policies and Services, or department permission.

**SWK 465 Social Work, Sex and the Family.****Three sem hours**

Analysis of impact on sexual behavior and issues of sexuality on family relationships and the development of children. Provides a broad view of human sexuality focusing on assessment and social work intervention in situations in which sexual issues are significant. Examples include incest, adolescent sexual relationships, sexual preferences, birth control, venereal disease and sexual functioning.

Prereq: SWK 120 Introduction to Social Work Services and Professional Roles and SWK 222 Social Welfare Policies and Services, or department permission.

**SWK 470 Supervising Staff and Volunteers.****Three sem hours**

Examines models of supervision and the roles of the social services supervisor. Attention to 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. The role of the supervisee in utilizing supervision will also be examined.

Prereq: SWK 120 Introduction to Social Work Services and Professional Roles and SWK 222 Social Welfare Policies and Services, or department permission.

**SWK 477, 478, 479 Special Topics in Social Work Practice.****One, two and three sem hours**

A consideration of specialized topics which are integral to contemporary social work practice. Social work faculty members will select contemporary topics which are unique and different from existing social work courses. Since topics change, a student may take the course more than once.

Prereq: SWK 120 Introduction to Social Work Services and Professional Roles and SWK 222 Social Welfare Policies and Services, or department permission.

**SWK 488 Field Experience I.****Six sem hours**

Field experience is designed to meet the learning needs of students and the standards of professional social work education. Professional standards are fixed; however, learning needs may vary from student to student. The field placement agency, in consultation with the Department of Social Work, provides learning experiences and supervision that are appropriate to the objectives of a professional undergraduate program and to the level of the student's knowledge and capacity. A weekly two hour seminar relating field learning to classroom content is an integral part of this course.

Prereq: SWK 315 Theoretical Bases for Social Work Practice, SWK 317 Social Work Practice I, SWK 360 Practice Issues Concerning Minorities and Women, and SWK 388 Pre-Professional Practicum, and Department Permission. Open only to social work majors with senior standing and an overall gpa of 2.3 or better in Social Work (SWK) courses. Student may not be on academic probation. Must be taken concurrently with SWK 408 Social Work Practice II.

**SWK 489 Field Experience II.****Six sem hours**

A continuation of SWK 488 Field Experience I.

Prereq: 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 (SWK) courses, and not be on academic probation. Open to majors only. Must be taken concurrently with SWK 409 Social Work Practice III.

**SWK 497, 498, 499 Independent Study.****One, two and three sem hours**

Under the supervision of a social work faculty member, this course provides the opportunity for directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student (Normally such study is restricted to advanced, proficient students).

Prereq: Permission of social work faculty member and the department.

**SOCIAL WORK****Bachelor of Arts or Bachelor of Science Degree**Adviser Chairman, **Donald M. Loppnow**

(487-0393)

Department of Social Work

This program offers students a generalist foundation of knowledge, values, and skills integral to entry level professional social work careers. The broad objectives of the Department of Social Work include the following: (1) to prepare students for entry level social work positions in the public and private sectors; (2) to provide education of a quality and scope which qualifies students for further study at the graduate level; and (3) to provide opportunities for agency personnel and interested members of the community to enroll in courses on a continuing education basis.

The social work "major" is an interdisciplinary curriculum consisting of 76 semester hours of specified courses including 38 hours of required social work courses, a special 18 hour concentration in sociology, two courses in psychology, an educational psychology course, a course in economics, additional course work focusing on minorities and women, and four semester hours of biological science. In addition to the social work curriculum itself, the program offers a minor in social work and a series of elective courses which are components of the Family and Children's Services Curriculum Specialty.

The Department of Social Work is accredited by the Council on Social Work Education.

### Field Experience

Students majoring in social work are required to spend 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 when they are in placement 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 2.0 overall grade point at the time of entering and during field placement is required (no probation).
2. A 2.3 overall grade point average in social work at the time of entering and during field placement.
3. Students must have completed all required social work courses through the 300 level before beginning field placement.
4. Students must receive a "C" or better in their first semester field placement to be eligible to continue in the second semester.
5. A field placement application must be obtained from the Social Work Office, completed by the student and returned to the office by April if placement is desired fall/winter and by October for the following winter/spring/summer terms. The field placement coordinator will obtain all field placements.
6. Students enrolling for the first semester of field placement (Social Work 488) must take Social Work 408 concurrently. Students enrolling for the second term of field placement (Social Work 489) must take Social Work 409 concurrently.
7. Note on 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.

## Social Work Curriculum

The outline of the curriculum which follows identifies with an asterisk (\*) the specific courses required to complete a degree in social work and shows their distribution among the group requirements. The social work curriculum is accredited by the Council on Social Work Education.

	<b>Semester Hours</b>
Group I Language	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science. (Group I).	

Group II Science and Mathematics	13-14
*BIO 105 Biology and Human Species	4
*PSY 101 General Psychology	3
*PSY 360 Abnormal Psychology	
One additional laboratory science course from the biology, chemistry, geography, physics or psychology departments or one math course	3-4
(MTH 104 Intermediate Algebra or CSC 136 Survey of Computer Science recommended)	
Group III Social Sciences	71
One course in history	3
Either of the following:	3
PLS 112 American Government or	
PLS 202 State and Local Government	
Either of the following:	3
ECO 201 Principles of Economics I or	
ECO 200 The American Economy	
*ANT 135 Introduction to Cultural Anthropology	3
*SOC 105 Introductory Sociology	3
*SOC 250 Elementary Social Statistics	3
*SOC 314 Racial and Cultural Minorities	3
*SOC 362 Complex Organizations	3
*SOC 304 Methods in Sociological Research	3
*One of the following:	3
BSP 101 Introduction to Afro-American Studies	
ANT 233 Peoples and Cultures of Mexico	
ANT 236 Peoples of Africa	
ANT 237 Indians of North America	
PSY 340 Psychological Perspectives on Prejudice and Discrimination	
ECO 321 Black Workers and the Labor Market	
*One of the following:	3
PSY 242 Psychology of Women	
ECO 328 Economics of Women	
SOC 444 Sociology of Sex Roles	
*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 Concerning Minorities and Women	3
*SWK 388 Pre-Professional Practicum	2
*SWK 405 Analysis and Change of Social Services 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
Humanities	11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts.	
Group VII Physical Education and Health	2
Physical education activity courses	2
Note: Two semester hours of military science may apply toward this requirement.	
Free electives	15-12
Total	124

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed.



## Social Work Minor Non-Teaching

(20–21 semester hours)

The social work profession, its theory, values, and practice skills can enhance, augment, and complement the educational foundation for students concentrating in other fields of study. The social work minor is particularly compatible with the disciplines where the college graduate will be in a helping role with people. Course requirements for a minor in social work are as follows:

SWK 120 Introduction to Social Work Services and Professional Roles .....	3
SWK 222 Social Welfare Policies and Services ..	3
Social Work Electives .....	14–15

## Family and Children's Services Specialty

The Family and Children's Services Specialty (FCSS) offers specialized preparation for social work careers in services to families and children. The specialty consists of a series of elective courses all of which focus on providing social work services to families and children. The FCSS is intended for people working toward a bachelor's degree in social work and related professions. In addition, the specialty is intended to be an educational resource available on a continuing education

basis for agency staff who wish to enhance their knowledge and skills in social work with families and children. This specialty is not a major or minor.

In order to be "certified" as having completed the FCSS, the student/practitioner must complete "SWK 418 Policies and Issues in Services to Families" and select any three additional courses from the following courses which are a part of the specialty.

SWK 419 Family-Centered Practice
SWK 420 Working with Aging People
SWK 422 Specialized Services for Families with Children in Placement
SWK 424 Social Work with Physically and Mentally Handicapped
SWK 431 Substance Abuse
SWK 435 Group Work with Children and Families
SWK 460 The Law and Social Work with the Family
SWK 465 Social Work, Sex and the Family
SWK 470 Supervising Staff and Volunteers

The process of selecting which courses are most sensible for a particular person should be accomplished in consultation with a faculty advisor. Upon completion of the four courses with at least a 2.5 grade point average in the courses, the student is awarded a certificate recognizing completion of the FCSS and an appropriate notation is entered on the student's academic record. Students may enroll in the courses for undergraduate or graduate credit and course expectations are adjusted accordingly.

**COLLEGE OF TECHNOLOGY**  
**COURSE DESCRIPTIONS AND**  
**PROGRAMS OF STUDY**

**DEAN: Alvin E. Rudisill**

**DEPARTMENTS**

**Business and Industrial Education**

**Industrial Technology**

**Interdisciplinary Technology**

**Military Science**



## DEPARTMENTS

### Business and Industrial Education

**Department Head:** H. James Rokusek

**Professors:** Charles H. Duncan, Gerald L. Jennings, Paul D. Kuwik, Delmar L. Larsen, Russell L. Ogden, Robert A. Ris-tau, Mary F. Robek, Rosetta C. Wingo

**Associate Professors:** Lewis D. Kieft, Harold E. PaDelford, Herbert H. Wilson

**Assistant Professor:** Thomas L. McDole

The formation of a College of Technology at Eastern Michigan University was approved by the EMU Board of Regents at their March 19, 1980, meeting, and the College began functioning as an academic administrative unit of the University in September of 1980 with the appointment of an Academic Dean. The College is comprised of the Departments of Business and Industrial Education, Industrial Technology, Interdisciplinary Technology and Military Science.

The formation of the College was based on information gathered from 575 industries in Michigan, which indicated a significant need for trained technologists in a wide variety of industrial positions. A primary function of Eastern's College of Technology is to meet this need by providing broad-based four-year baccalaureate level programs with solid foundations in mathematics, science, technology, management and human relations. Program content is practical and applied in nature with a generous amount of laboratory and cooperative work experiences. Graduates of programs in the College with this focus will be employed by industry in middle-level technology oriented management positions in production, research and marketing.

Another primary focus of the College is to provide programs for the preparation of business and industry teachers and industrial training personnel. The majority of programs available in these areas within the College have existed at EMU for a considerable length of time and were transferred under the College when it was formed.

The Military Science programs within the College provide training in a unique curriculum which permits entry into the active Army, Army Reserve or National Guard as a commissioned officer. Emphasis in these curriculums is on the development of individuals capable of organizing, motivating and leading others.

A number of programs within the College will utilize an interdisciplinary approach which will draw heavily upon existing courses and personnel from throughout the University. In these programs "capstone" courses will be added in the College to supplement and complement existing course work and to provide practical experiences related to actual job requirements.

The College of Technology is expected to grow rapidly throughout the 1980's with two to three new program areas added each year to meet the emerging needs of business, industry and education.

The College of Technology offers graduate work in a number of program areas. Please consult the EMU Graduate Catalog for descriptions of graduate courses and programs and courses in the College of Technology.

The department offers curricula in administrative services, business education and industrial education leading to either a Bachelor of Business Education degree or a Bachelor of Science degree. Program and course requirements for each curriculum, major or minor available in the department are described on the pages indicated below:

#### I. Curricula and Majors:

##### A. Administrative Services Curriculum (Page 269)

1. Executive Office Specialist major (Page 270)
2. Legal Assistant major (Page 270)
3. Office Administration major (Page 270)

##### B. Business Teacher Education Curriculum (Page 271)

1. Distributive Education major (Page 272)
2. Office Education major (Page 271)

##### C. Industrial Teacher Education Curriculum (Page 273)

1. Industrial Education-Industrial Arts major (Page 273)
2. Industrial Education-Industrial Vocational Major (Page 274)

#### II. Minors:

- A. Business Teacher Education Minor (Page 272)
- B. Executive Office Specialist Minor (Page 272)
- C. Industrial Education Minor (Page 274)

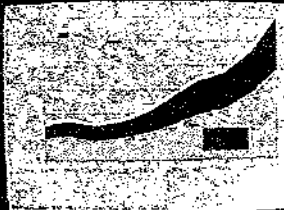
## BUSINESS EDUCATION COURSES

New courses are identified with a bullet •.

**BE 100 Contemporary Business.** **Three sem hours**  
The American business enterprise system is studied and analyzed. Contemporary problems and future challenges are presented. Career decision-making in terms of business careers is facilitated. Open to all freshmen and sophomores and non-business upper-classmen.

**BE 120 Typewriting Techniques.** **Two sem hours**  
Development of basic techniques and manipulative skill for efficient machine operation. Speed and control emphasized. Introduction to applications through centering, tabulating and structuring typewritten material for various purposes. Lab fee required.

**BE 121 Typewriting Applications.** **Two sem hours**  
Continued emphasis on skill development. Application of skill to typing special communication forms, letters, manuscripts and tabulated reports. Attention is given to improved form and punctuation. Lab fee required.  
*Prereq:* BE 120 Typewriting Techniques or one year of high school typewriting. No credit is given to students who have received credit for two years of high school typewriting.



- BE 200 Principles of Distributive and Office Education.** **Three sem hours**  
An introductory course to provide a background knowledge of distributive education and office education and to introduce the scope and importance of vocational education with emphasis on distributive and office education.
- BE 205 Women in Business.** **Three sem hours**  
Study of social and business conditions which support the entry of women to executive positions in business; opportunity to explore career opportunities at the professional and executive levels of business.
- BE 210 Concepts of Word Processing.** **Three sem hours**  
Acquaint students with the concepts and functions of word processing equipment, procedures, and career opportunities. Applications and the organization of word processing services are included as is the extension of word processing through the use of peripherals.
- BE 220 Word Processing Operations.** **Three sem hours**  
Creation of written communications through the use of electronic media. Includes communication skills (spelling, punctuation, grammar and formatting) and "hands on" experience in machine transcription and automated typewriters.  
Prereq: BE 121 Typewriting Applications or equivalent.
- BE 223 Forkner Shorthand System.** **Three sem hours**  
Introduction to theory of Forkner shorthand. Development of skill in taking dictation and in transcribing for personal or business use.  
Prereq: BE 121 Typewriting Applications or equivalent.
- BE 224 Calculator Applications: Business and Personal.** **Three sem hours**  
Application of desk-type calculators to the solution of mathematical problems encountered in the business world. Operational skill is developed on rotary, printing and electronic calculators. Lab fee required. Open to non-business majors.
- BE 225 Gregg Shorthand.** **Three sem hours**  
(formerly Shorthand Theory)  
An introduction to the alphabet, brief forms and theory of Gregg shorthand. No credit is given to students who previously have completed a course in Gregg shorthand theory.  
Prereq: BE 121 Typewriting Applications or equivalent.
- BE 226 Shorthand Dictation.** **Three sem hours**  
Emphasis on the development of speed in taking dictation in Gregg, Forkner or other shorthand systems; develop ability to produce transcripts. Thorough review of brief forms, speed forms, and theory principles.  
Prereq: BE 223 Forkner Shorthand or 225 Gregg Shorthand or the completion of a course in the theory of an alternative shorthand system. Typewriting skill is required.
- BE 227 Shorthand Speedbuilding.** **Three sem hours**  
Extended speed dictation including specialized business and professional vocabularies. Emphasis on a correct transcript including punctuation and spelling.  
Prereq: BE 226 Shorthand Dictation or one and one-half years of high school shorthand and a typewriting speed of 50 net words per minute.
- BE 250 Personal Finance.** **Three sem hours**  
(formerly ADS 308)  
Deals with the management of financial resources to satisfy personal or family goals. Includes 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 310 Word Processing Administration.** **Three sem hours**  
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 210 Concepts of Word Processing.
- BE 325 Shorthand Transcription.** **Three sem hours**  
Further development of transcription skills. Application of shorthand, typewriting and English skills to produce business communications neatly and accurately at an acceptable rate.  
Prereq: BE 227 Shorthand Speedbuilding, or a measured speed of 80 wpm or more in one of the shorthand systems.
- BE 326 Secretarial Procedures.** **Three sem hours**  
Theory of secretarial procedures. Emphasis on office efficiency, human relations, executive thinking and secretarial ethics.  
Prereq: BE 121 Typing Applications or equivalent.
- BE 364 Methods of Teaching General Business Subjects.** **Two sem hours**  
Methods in teaching general business, business law, and typewriting with application to classroom situations. Emphasis on objectives, lesson planning, techniques of teaching and sources of materials.  
Prereq: EDP 302 Educational Psychology. A "C" average in all business education subjects taken at Eastern Michigan University is required before enrollment, with no academic probation.
- BE 365 Methods of Teaching Office and Cooperative Education.** **Two sem hours**  
Methods of teaching shorthand, office block, bookkeeping, accounting, typewriting, word processing and cooperative education classes. Emphasis will be placed on objectives, lesson planning, techniques of teaching and sources of materials.  
Prereq: EDP 302 Educational Psychology. A "C" average in all business education subjects taken at Eastern Michigan University is required before enrollment, with no academic probation.
- BE 366 Methods of Teaching Distributive Education and Cooperative Education.** **Two sem hours**  
Techniques and practices utilized in teaching distributive and cooperative education in secondary schools, community colleges, and in adult evening schools.  
Prereq: EDP 302 Educational Psychology. A "C" average in all business education subjects taken at Eastern Michigan University is required before enrollment, with no academic probation.
- BE 387 Cooperative Education in Business Education.** **Three sem hours**  
The 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. Graded credit/no credit.  
Credit applicable to the major in business education only.

**BE 395 Office Administration. Three sem hours**

Office problems from the point of view of the administrator. Consideration given to office organization, physical facilities, nature of office work, personnel relations and control of office output.

**BE 396 Records Administration. Two sem hours (formerly 415)**

A study of management methodology in records, control, costs, protection, retention, retrieval and disposal. Emphasizes records administration as a management tool.

**BE 411 Law Office Documents and Procedures. Three sem hours**

Documents and procedures commonly encountered in the operation of a law office. Designed for the legal assistant and the professional legal secretary.

*Prereq:* LAW 293 *Legal Environment of Business.*

**BE 412 Court Documents and Procedures. Three sem hours**

Documents and procedures commonly used in litigation. Designed for the legal assistant and the professional legal secretary.

*Prereq:* BE 293 *Legal Environment of Business.*

**BE 422 Office Systems. Three sem hours (formerly BED 222 Office Simulation)**

Machine transcription skills and automated typing skills will be integrated into office simulations designed to give the student the "feel" of the modern office. Integration of activities normally found in a typical business office is accomplished in a realistic setting - the Model Office. Duties, procedures, and forms have been developed to enable the students to assume the role of various office positions as realistically and effectively as possible. Lab fee required.

*Prereq:* BE 121 *Typewriting Applications or equivalent.*

**BE 462 Cooperative Programs in Business Education. Three sem hours**

Purpose and philosophy of vocational education in the fields of distributive and office occupations. Focus on organization and administration of vocational business education under federal, state and local regulations.

*Prereq:* Must be a senior or have departmental permission.

**BE 467 Cooperative Education in Business Education. Three sem hours**

The second in a two-course sequence for business 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 the major in business education only. Graded credit/no credit.

*Prereq:* BE 387 *Cooperative Education in Business Education.*

**BE 488 Business Internship. One sem hour (formerly 404)**

On-the-job experience in performing operational activities or in executing managerial and supervisory functions in the field of accounting, marketing or secretarial. At least nine hours of weekly practical work experience must be gained with attendance at a one-hour weekly seminar. Required for all business education students unless waived. Open to majors in business education and administrative services and to students in the Flexible Program.

**BE 497, 498, 499 Independent Study. One, two and three sem hours**

Students pursue some special area of study or experimentation under the direction of a designated faculty member from the department.

*Prereq:* Permission of the department.

**INDUSTRIAL EDUCATION****IE 102 Woodwork. Three sem hours**

Basic wood processing with hand and power tools. Includes learning experiences in design, pattern development, project construction and finishing. Selection, use and care of hand and power tools. Lecture: two hours per week. Laboratory: two hours per week.

**IE 104 Graphic Arts Processes. Three sem hours**

History of printing, typography, layout and design, hand composition, printing methods, proofreading, basic press work, silk screen printing, duplicating, thermography, rubber stamps and basic photo-offset lithography. Not open to majors in industrial education. Lecture: two hours per week. Laboratory: two hours per week.

**IE 105 History of Industrial Technology. Three sem hours**

An introduction to the history of industrial technology. The development of industry and its impact on the other arts, and to culture in general. Investigates basic principles of design in industrial and home arts, and the eotechnic, paleotechnic, neotechnic and atomic periods of technology.

**IE 118 Energy Utilization. Three sem hours**

An introductory study of technical aspects of energy problems of the present and future. Methods of energy conversion are demonstrated with steam engines, electrical and nuclear power plants, wind, solar and other alternate energy systems. Specifically designed for departmental minors and students with no technical background.

**IE 119 Consumer Automotives. Three sem hours**

A basic study of the operation of automobile engine and chassis systems, fuels and lubricants. Also reviews the problems of purchasing, selection of repairman, cost of operation, tune-ups, safety and the social impact of the automobile. Open to all students, but specifically designed for those with little or no technical background. Lecture: two hours per week. Laboratory: two hours per week.

**IE 152 Arts and Crafts. Three sem hours**

An exploratory course designed to provide experience in design and use of a wide variety of craft materials. Emphasis on an avocational and recreational use of craft media.

**IE 204 Photographic Communication. Two sem hours**

A basic course in the functions, principles and applications of photography in graphic communication. Lecture: one hour per week. Laboratory: two hours per week. Students must furnish their own camera and photo materials.

**IE 250 Foundations of Industrial Education. Three sem hours**

An introduction to the philosophy and implementation of industrial arts and industrial-vocational education. Emphasis is on the past, present, and future developments within the profession. Lecture, discussion, role playing, micro teaching, school visitations, and pre-student teaching activities are utilized as instructional methods.

**IE 253 Industrial Technology and the Elementary Teacher. Three sem hours**

An introduction to the basic elements of our industrial society which are relevant to elementary education. Content emphasis on teaching children through activities about career and self-awareness, how products are made, and preparation for living and working in our changing society. Laboratory experiences develop skills related to the use of tools and materials appropriate for the elementary classroom.

**IE 255 Art Metalwork.** **Two sem hours**  
Copper, brass and silver are the basic materials. Jewelry and other art metal objects are designed and made by the student. Emphasis on design and the basic processes. Open to all students. Lecture: one hour per week. Laboratory: two hours per week.

**IE 305 Forest Products.** **Three sem hours**  
A study of products derived from the trees; analysis of wood structure, wood hydrolysis, destructive distillation, veneers, wood pulp, solid members and related materials; machining, fabrication, testing and production. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT 202 Plastics.

**IE 350 Curriculum in Industrial Education.** **Three sem hours**  
A study of curricula and programs in industrial education for grades K-12. Includes consideration of the structure of the various programs with emphasis upon the selection, organization and validation of the content for them.  
Prereq: IE 250 Foundations of Industrial Education, junior standing.

**IE 354 Experiences in Technology for Children.** **Two sem hours**  
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 Industrial Technology and the Elementary Teacher.

**IE 355 Seminar in Technology for the Elementary School.** **Two sem hours**  
Practical experiences in integrating concepts of technology with existing elementary and special education curriculums. Students will design, conduct and evaluate manipulative activities for and with children.  
Prereq: IE 354 Experiences in Technology for Children.

**IE 358 Tools and Materials.** **Three sem hours**  
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.  
Prereq: Occupational Therapy major or departmental permission.

**IE 387 Cooperative Education in Industrial Education.** **Three sem hours**  
(formerly 394)  
The 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. Graded credit/no credit.  
Credit applicable to the major in industrial education only.

**IE 452 Principles of Vocational-Technical Education.** **Three sem hours**  
The concepts and principles of vocational-technical education as well as the current issues in vocational education in Michigan.  
Prereq: IE 350 Curriculum in Industrial Education or approval of the Department.

**IE 460 Practicum in Industrial Education.** **Two sem hours (Group IV)**  
Direct involvement in solving problems related to classroom activities in industrial education programs. Emphasis upon the implementation of the methods employed in the classroom including the selection, organization and evaluation of the activities. Laboratory: two hours per week.  
Prereq: IE 350 Curriculum in Industrial Education. Concurrent with IE 461 The Teaching of Industrial Education and student teaching.

**IE 461 The Teaching of Industrial Education.** **Two sem hours (Group IV)**  
Examines the relationship between principles of effective learning and various methods of organization of industrial education content.  
Prereq: IE 350 Curriculum in Industrial Education. Concurrent with IE 460 Practicum in Industrial Education and student teaching.

**IE 487 Cooperative Education in Industrial Education.** **Three sem hours**  
(formerly 494)  
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 the major in industrial education only. Graded credit/no credit.  
Prereq: IE 387 Cooperative Education in Industrial Education.

**IE 497, 498, 499 Directed Study.** **One, two and three sem hours**  
Available to selected students who have demonstrated ability to profit from a directed study project. Provides opportunity for 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-chairman.

## ADMINISTRATIVE SERVICES CURRICULUM

### Bachelor of Science Degree

Adviser Chairperson: **Rosetta F. Wingo**  
(487-3410)

Department of Business and Industrial Education

This program is designed for individuals preparing for careers such as an administrative secretary, legal assistant, certified professional secretary, office administrator, management trainee, word processing supervisor or legal secretary. Individuals who complete this professional program option should find many other career opportunities open to them.

Students may select majors in legal assistant, office administrator or executive office specialist under this curriculum.

	Semester Hours
Group I Language: . . . . .	8-12
SPH 121 Fundamentals of Speech . . . . .	2
(May substitute SPH 124)	
ENG 121 English Composition . . . . .	3
One elective course in English Language, in a foreign language, in speech or in library science (Group I).	

Group II Science and Mathematics ..... (No more than two courses in one department.)	10-12
One laboratory science course.	
PSY 101 General Psychology .....	3
MTH 118 Mathematical Analysis for Social Sciences I .....	3
Group III Social Sciences .....	12
PLS 112 American Government .....	3
(May substitute PLS 113 American Government Honors or PLS 202 State and Local Government)	
One course in History.	
ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
Humanities .....	11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music or dramatic arts.	
Administrative Services Core .....	27
ACC 240 Principles of Accounting .....	3
ACC 241 Principles of Accounting .....	3
BE 100 Contemporary Business .....	3
BE 250 Personal Finance .....	3
LAW 293 Legal Environment of Business .....	3
MGT 202 Business Communication .....	3
MGT 382 Introduction to Management .....	3
MKT 360 Principles of Marketing .....	3
ORI 215 Computers in Business .....	3
Academic Major (Select One) .....	24
Executive Office Specialist	
Legal Assistant	
Office Administrator	
Group VII Physical Education and Health .....	2
Physical education activity courses .....	2
Note: Two semester hours of military science may apply toward this requirement.	
Free Electives .....	23-30
Total .....	124

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed. A maximum of ten (10) courses from the College of Business will count toward the 124 SH graduation requirement.

**Executive Office Specialist Major** (To be completed only in conjunction with the Bachelor of Science degree and the administrative services curriculum.)

The executive office specialist major is designed to develop competent personnel who can assume a share of the administrative, organizational, and communicative functions in executive offices. The program develops proficiency in technical skills and provides the knowledge and background needed to assume responsibility without direct supervision and to make decisions within the scope of assigned authority. Students may select one of four available program options.

<b>Semester Hours</b>	
Total Hours Required .....	24
Required Courses .....	14
BE 224 Calculator Applications: Business and Personal .....	3
BE 326 Secretarial Procedures .....	3
BE 395 Office Administration .....	3
BE 396 Records Administration .....	2
BE 422 Office Systems .....	3
Select one of the following options .....	10

<b>Option I: Administrative Office Assistant</b>	
BE 310 Word Processing Administration .....	3
MGT 402 Business Report Writing .....	3
Restricted Electives .....	4

<b>Option II: Word Processing Administration</b>	
BE 210 Concepts of Word Processing .....	3
BE 220 Word Processing Operations .....	3
MGT 402 Business Report Writing .....	3
Restricted Elective .....	1

<b>Option III: Executive Secretary</b>	
BE 226 Shorthand Dictation .....	3
BE 227 Shorthand Speedbuilding .....	3
Restricted Electives .....	4

<b>Option IV: Legal Secretary</b>	
BE 220 Word Processing Operations .....	3
or	
BE 227 Shorthand Speedbuilding	
BE 411 Law Office Documents and Procedures .....	3
BE 412 Court Documents and Procedures .....	3
Restricted Elective .....	1

Restricted Electives	
BE 120 Typewriting Techniques .....	3
BE 121 Typewriting Applications .....	2
BE 210 Concepts of Word Processing .....	3
BE 220 Word Processing Operations .....	3
BE 225 Gregg Shorthand .....	3
BE 227 Shorthand Speedbuilding .....	3
BE 310 Word Processing Administration .....	3
BE 325 Shorthand Transcription .....	3
BE 497 Independent Study .....	1

**Legal Assistant Major** (To be completed only in conjunction with Bachelor of Science Degree and the administrative services curriculum.)

The legal assistant major provides the background necessary for an individual to draft legal documents, interview clients and witnesses, perform legal research, and prepare papers to be filed in court. Employment opportunities exist in private law offices, prosecutors offices, or legal aid clinics.

Total Hours Required .....	24
Required Courses .....	15
BE 395 Office Administration .....	3
BE 411 Law Office Documents and Procedures .....	3
BE 412 Court Documents and Procedures .....	3
LAW 313 Legal Research .....	3
LAW 395 Law of Business Enterprises .....	3
Restricted Electives .....	9
BE 396 Records Administration .....	2
BE 497 Independent Study .....	1
PLS 301 The American Legal System .....	3
PLS 315 Consumer Law and Politics .....	3
PLS 456 Criminal Law I .....	3

**Office Administrator Major** (To be completed only in conjunction with Bachelor of Science degree and the administrative services curriculum.)

The office administrator major focuses on the technical skills, concepts and principles needed to provide the background necessary to assume responsibility for executive office administration. Office administrators are vital members of executive teams and assume supervisory, organizational and communicative roles in the coordination of office functions.

Total Hours Required .....	24
Required courses .....	14
BE 210 Concepts of Word Processing .....	3
BE 395 Office Administration .....	3
BE 396 Records Administration .....	2
BE 422 Office Systems .....	3
LAW 403 Labor Law .....	3
Restricted Electives .....	10
BE 220 Word Processing Operations .....	3
BE 310 Word Processing Administration .....	3
BE 497 Independent Study .....	1
MGT 384 Personnel Administration .....	3
MGT 485 The Training Function in Organizations .....	3

## BUSINESS EDUCATION CURRICULUM

### Bachelor of Business Education Degree

- Secondary Provisional Certificate
- Vocational Distributive Education Certificate
- Vocational Office Education Certificate

Adviser Chairperson: **Rosetta F. Wingo**  
(487-3410)

Department of Business and Industrial Education

This program is designed for individuals preparing for careers as a junior or senior high school business office education teacher, a high school teacher coordinator of cooperative education or a community or junior college business teacher. Students who complete this professional program will also find many non-teaching careers in business open to them.

Students may select majors in office education or distributive education and qualify for the Michigan Secondary School Professional Teachers Certificate. Vocational certification is available for those who meet requirements as specified in the current Michigan State Plan for Vocational Education.

	<b>Semester Hours</b>
<b>Group I Language</b> .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
<b>Group II Science and Mathematics</b> .....	10
One laboratory science course from the biology, chemistry, geography or physics departments	4
PSY 101 General Psychology .....	3
MTH 118 Mathematical Analysis for Social Sciences I .....	3
<b>Group III Social Sciences</b> .....	12
One history course .....	3
ECO 201, 202 Principles of Economics .....	6
Either of the following: .....	3
PLS 112 American Government or	
PLS 202 State and Local Government	
<b>Humanities</b> .....	11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion	
One course in art, music or dramatic arts.	

<b>Group IV Education</b> .....	23
EDP 302 Educational Psychology .....	3
CUR 303 Principles of Teaching .....	3
BE 200 Principles of Distributive and Office Education .....	3
CUR 418 Seminar in Education .....	2
Methods in business subjects (select two) .....	4
BE 364 Methods of Teaching General Business Subjects .....	2
BE 365 Methods of Teaching Office and Cooperative Education .....	2
BE 366 Methods of Teaching Distributive Education and Cooperative Education .....	2
EDU 492 Student Teaching .....	8
<b>Group VI Business Education Core</b> .....	27
ACC 240 Principles of Accounting .....	3
ACC 241 Principles of Accounting .....	3
BE 100 Contemporary Business .....	3
BE 250 Personal Finance .....	3
MKT 202 Business Communications .....	3
MKT 360 Principles of Marketing .....	3
MGT 382 Introduction to Management .....	3
LAW 293 Legal Environment in Business .....	3
ORI 215 Computers in Business .....	3
<b>Academic Major (Select one)</b> .....	25
Office Education	
Distributive Education	
<b>Group VII Physical Education and Health</b> .....	2
Physical Education Activity Courses .....	2
Note: Two semester hours of Military Science may apply toward this requirement.	
<b>Free Electives</b> .....	4-6
<b>Total</b> .....	124

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed. A maximum of ten (10) courses from the College of Business will count toward the 124 SH graduation requirement.

**Office Education Major** (To be completed only in conjunction with the Bachelor of Business Education degree and the business teacher education curriculum.)

	<b>Semester Hours</b>
Total Hours Required .....	25
Required Courses .....	14
BE 121 Typewriting Applications .....	2
BE 224 Calculator Applications: Business and Personal .....	3
BE 395 Office Administration .....	3
BE 396 Records Administration .....	2
BE 422 Office Systems .....	3
BE 488 Business Internship .....	1
Select nine semester hours from one of the following options .....	9
<b>Option I: Accounting</b>	
ACC 340 Intermediate Accounting .....	3
ACC 341 Intermediate Accounting .....	3
ACC 342 Managerial Cost Accounting .....	3
ACC 344 Tax Accounting .....	3
ACC 346 Governmental Accounting .....	3
<b>Option II: Data Processing</b>	
ORI 219 COBOL Programming .....	3
ORI 317 Systems Simulation .....	3
ORI 415 Applied Data Structures .....	3
ORI 416 Computer Operating Systems .....	3
ORI 417 Development of Management Information Systems .....	3

**Option III: Word Processing**

BE 220 Word Processing Operations	3
BE 226 Shorthand Dictation	3
BE 310 Word Processing Administration	3
BE 325 Shorthand Transcription	3
BE 326 Secretarial Procedures	3
Restricted Electives	2
BE 120 Typewriting Techniques	2
BE 205 Women in Business	3
BE 210 Concepts of Word Processing	3
BE 220 Word Processing Operations	2
BE 223 Forkner Shorthand System	3
BE 226 Shorthand Dictation	3
BE 227 Shorthand Speedbuilding	3
BE 310 Word Processing Administration	3
BE 325 Shorthand Transcription	3
BE 326 Secretarial Procedures	3
BE 387 Cooperative Education in Business Education	3
BE 487 Cooperative Education in Business Education	3

**Distributive Education Major** (To be used only in conjunction with the Bachelor of Business Education Degree and the business teacher education curriculum.)

Total Hours Required	25
Required Courses	14
BE 121 Typewriting Applications	2
BE 224 Calculator Applications: Personal and Business	3
BE 395 Office Administration	3
MKT 261 Contemporary Selling	3
MKT 363 Retailing	3

Select one of the following options

<b>Option I: Consumer Economics</b>	9
ECO 326 Consumer Economics	3
HEC 112 Introduction to Consumer Affairs	3
PLS 315 Consumer Law and Politics	3

<b>Option II: Career Education</b>	
BE 205 Women in Business	3
G&C 405 Basic Guidance Concepts and Procedures	2
BE 498 Independent Study	2
G&C 100 Career Exploration and Decision Making	2

**Semester Hours**

Restricted Elective	2
BE 120 Typewriting Techniques	2
BE 387 Cooperative Education in Business Education	3
BE 396 Records Administration	2
BE 422 Office Systems	3
BE 487 Cooperative Education in Business Education	3
BE 488 Business Internship	1
MKT 365 Buyer Behavior	3

**Business Teacher Education Minor** (Students majoring in some other area of teaching can earn a business teacher education minor by completing one of the options shown below.)

<b>Option I: Accounting</b>	22
BE 100 Contemporary Business	3
BE 200 Principles of Distributive and Office Education	3
BE 365 Methods of Teaching Office and Cooperative Education	2
ACC 240 Principles of Accounting	3
ACC 241 Principles of Accounting	3

ACC 340 Intermediate Accounting	3
ACC 341 Intermediate Accounting	3
Electives in Business Education	2

**Option II: Distributive Education** 22

BE 100 Contemporary Business	3
BE 200 Principles of Distributive and Office Education	3
BE 366 Methods of Teaching Distributive Education and Office Education	2
MKT 261 Contemporary Selling	3
MKT 360 Principles of Marketing	3
MKT 363 Retailing	3
MKT 368 Marketing Strategy	3
Electives in Business Education	2

**Option III: General Business** 22

ACC 240 Principles of Accounting	3
BE 100 Contemporary Business	3
BE 250 Personal Finance	3
BE 364 Methods of Teaching General Business Subjects	2
LAW 293 Legal Environment of Business	3
LAW 393 Law of Business Enterprise	3
MGT 382 Introduction to Management	3
Electives in Business Education	2

**Option IV: Office Administration** 22

BE 100 Contemporary Business	3
BE 210 Concepts of Word Processing	3
BE 365 Methods of Teaching Office and Cooperative Education	2
BE 395 Office Administration	3
BE 396 Records Administration	3
MTH 118 Mathematical Analysis for Social Sciences I	3
ORI 215 Computers in Business	3
Electives in Business Education	2

**Option V: Secretarial** 22

BE 100 Contemporary Business	3
BE 200 Principles of Distributive and Office Education	3
BE 210 Concepts of Word Processing	
or	
BE 325 Shorthand Transcription	3
BE 220 Word Processing Operations	
or	
BE 227 Shorthand Speedbuilding	3
BE 224 Calculator Applications: Business and Personal	3
BE 326 Secretarial Procedures	3
BE 365 Methods of Teaching Office and Cooperative Education	2
Electives in Business Education	2

**Executive Office Specialist Minor (Non-Teaching)**

Total Hours Required	20
Required Courses	6
BE 224 Calculator Applications: Business and Personal	3
BE 326 Secretarial Procedures	3
BE 396 Records Management	2
Select nine semester hours from one of the following options	9

**Option I: Shorthand**

BE 225 Gregg Shorthand	3
BE 226 Shorthand Dictation	3
BE 227 Shorthand Speedbuilding	3
BE 225 Shorthand Transcription	3

**Option II: Word Processing**

BE 210 Concepts of Word Processing .....	3
BE 220 Word Processing Operations .....	3
BE 310 Word Processing Administration	
or	
BE 422 Office Systems .....	3
Restricted Electives .....	3
BE 120 Typewriting Techniques .....	2
BE 121 Typewriting Applications .....	2
BE 395 Office Administration .....	3

(Group IV courses marked with an asterisk comprise a 14 semester hour block which represents the "Professional Semester in Industrial Education." This block is to be completed intact by all students in this curriculum as the last full semester of course work in the program of study.)

Academic Major (Select One) .....	50
Industrial Education/Industrial Arts	
Industrial Education/Industrial Vocational	
Group VII Physical Education and Health .....	2
Physical Education activity courses .....	2
Note: Two semester hours of Military Science may apply toward this requirement.	
Free Electives .....	4-6
Total .....	124

## INDUSTRIAL EDUCATION CURRICULUM

### Bachelor of Science Degree

Adviser Chairperson: **Gerald Jennings**  
(487-4330)

Department of Business and Industrial Education

This curriculum prepares teachers of industrial arts and industrial vocational subjects for the middle school, junior high school, senior high school and community college. It offers a broad-based description of modern industry and technology, with the opportunity to develop specialized competencies in a variety of technical areas.

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed.

**Industrial Education/Industrial Arts Major** (To be completed only in conjunction with the Bachelor of Science degree and the industrial education curriculum.)

The Industrial Education/Industrial Arts major is designed to prepare teachers of industrial arts for grades K-12 and industrial-vocational teachers for grades 9-12 and post secondary industrial-vocational programs. All graduates with this major qualify for a secondary provisional certificate with an endorsement in industrial arts. Graduates may qualify for vocational endorsement or temporary vocational authorization by completing two years of occupational experience in employment that is related to the area of study. Options for cooperative work experience are available to the student as partial credit toward that occupational requirement.

	<b>Semester Hours</b>
<b>Group I Language</b> .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
One elective course in English language, in a foreign language, in speech, or in library science (Group I).	
<b>Group II Science and Mathematics</b> .....	13
MTH 107 Trigonometry .....	2
Two courses in physics, chemistry or mathematics that are consistent with the requirements for the area of concentration (one course must be a laboratory science class) .....	8-10
PSY 101 General Psychology .....	3
<b>Group III Social Sciences</b> .....	12
One history course .....	3
A two-course sequence in economics or sociology .....	6
Either of the following: .....	3
PLS 112 American Government or	
PLS 202 State and Local Government	
<b>Humanities</b> .....	11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in art, music, or dramatic arts.	
<b>Group IV Education</b> .....	22
EDP 302 Educational Psychology .....	3
CUR 303 Principles of Teaching .....	3
EDP 340 Introduction to Measurement and Evaluation or G&C 405 Basic Guidance Concepts and Processes .....	2
*CUR 418 Seminar in Education .....	2
*IE 460 Practicum in Industrial Education .....	2
*IE 461 The Teaching of Industrial Education .....	2
*EDU 492 Student Teaching .....	8

Total Hours Required .....	50
Required Courses .....	36
IE 102 Woodwork .....	3
IE 250 Foundations of Industrial Education .....	3
IE 350 Curriculum in Industrial Education .....	3
IT 121 Graphic Communication .....	3
IT 122 Technical Drawing or	
IT 128 Architectural Drawing I .....	3
IT 123 Metal Processes .....	3
IT 200 Industrial Electricity .....	3
IT 201 Construction Technology .....	3
IT 203 Manufacturing Technology .....	3
IT 213 Occupational Safety and Health .....	3
IT 217 Structure of Industry .....	3
IT 218 Energy Systems .....	3
Select fourteen semester hours from one of the following options .....	14

**Option I: Construction**

Select three courses from the following:

IT 206 Surveying .....	3
IT 229 Architectural Drawing II .....	3
IT 400 Site Planning and Development .....	3
IT 401 Construction Estimating and Bidding .....	2
IT 402 Construction Materials .....	3
IT 403 Production Control in Construction .....	2

Select two courses from the following:

IE 305 Forest Products .....	3
IE 387 Cooperative Education in Industrial Education .....	3
IE 487 Cooperative Education in Industrial Education .....	3
IT 223 Descriptive Geometry .....	3
IT 231 Industrial Computer Graphics .....	3



**Option II: Manufacturing**

Select three courses from the following:

IT 215 Machine Tool Metalworking	3
IT 231 Industrial Computer Graphics	3
IT 318 Energy Transfer Systems	3
IT 420 Materials Handling or	
IT 424 Industrial Plant Facilities and Planning	3
IT 428 Control and Instrumentation	3

Select two courses from the following:

IE 387 Cooperative Education in Industrial Education	3
IE 487 Cooperative Education in Industrial Education	3
IT 205 Photo-Technology	2
IT 207 Photographic Reproduction	3
IT 218 Energy Systems	3
IT 219 Techniques of Energy Control	3
IT 251 Materials Analysis and Testing	3
IT 306 Plastic Processing	3
IT 310 Graphic Arts Workshop	3
IT 314 Integrated Circuits	3
IT 316 Advanced Machining Processes	3
IT 324 Industrial Drawing	3
IT 414 Solid State Electronics	3

**Option III: Graphic Communication - Drafting**

IT 122 Technical Drawing	3
IT 128 Architectural Drawing I	3
IT 206 Surveying	3
IT 223 Descriptive Geometry	3
IT 229 Architectural Drawing II	3
IT 231 Industrial Computer Graphics	3
IT 324 Industrial Drawing	3
IT 431 Interactive Industrial Computer Graphics	3

**Option IV: Graphic Communication - Graphic Arts**

IE 204 Photographic Communication	2
IT 205 Photo-Technology	2
IT 207 Photographic Reproduction	3
IT 304 Advanced Photographic Communication	3
IT 310 Graphic Arts Workshop	3
IT 404 Photo Communication Workshop	3

**Option V: Power**

Electronics Courses:

IT 314 Integrated Circuits	3
IT 414 Solid State Electronics	3
IT 415 Communication Circuits	2
IT 434 Microcomputer Circuits	3

Energy Systems Courses:

IT 219 Techniques of Energy Control	3
IT 318 Energy Transfer Systems	3
IT 319 Automotive Technology	3
IT 428 Control and Instrumentation	3

**Industrial Education/Industrial-Vocational Major** (To be completed only in conjunction with the Bachelor of Science degree and the industrial education curriculum.)

The industrial education/industrial-vocational major is designed to prepare teachers of industrial-vocational subjects for senior high school and community college vocational education programs. Graduates who complete this major and have a minimum of two years of experience in a certifiable occupational area will qualify for 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 provides very 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 area in the senior high school or com-

munity 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.

This major qualifies individuals to teach only in selected occupational areas. The "temporary vocational authorization" granted is valid for six years and by that time individuals must have completed additional requirements to qualify for continued vocational certification. Individuals should consult with the advisory chairperson for the industrial education curriculum or with the Head of the Department of Business and Industrial Education.

Total Hours Required	50
Required Courses	15
IE 250 Foundations of Industrial Education	3
IE 350 Curriculum in Industrial Education	3
IE 452 Principles of Vocational-Technical Education	3
IT 213 Occupational Safety and Health	3
IT 217 Structure of Industry	3
Area of Concentration	35

Courses comprising these thirty-five hours should represent 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 may also be validated and credit awarded toward the area of concentration by successfully passing an occupational competency examination.

**Minor in Industrial Education** (20 semester hours) (This minor may be selected by any student on an elementary or special education curriculum. It is not available to students on other programs.)

	<b>Semester Hours</b>
Required Courses	5
IE 253 Industrial Technology and the Elementary Teacher	3
IE 354 Experiences in Technology for Children	2

Select a minimum of three courses from the following

	8-11
IE 102 Woodwork	3
IE 152 Arts and Crafts	3
IE 250 Foundations of Industrial Education	3
IE 355 Seminar in Technology for Elementary School	2

Electives

	4-7
BE 100 Contemporary Business	3
IE 105 History of Industrial Technology	3
IT 121 Graphic Communication	3
IE 204 Photographic Communication	2
IE 350 Curriculum in Industrial Education (Pre-requisite: IE 250)	3
IE 452 Principles of Vocational-Technical Education (Pre-requisite: IE 350)	3
IE 497 Directed Study in Industrial Education	1

Total Semester Hours	20
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# INDUSTRIAL TECHNOLOGY

Department Head: Jeffrey T. Luftig  
 Professors: Ronald J. Baird, Jerald A. Griess, Clois E. Kicklighter  
 Associate Professors: William McPherson, Gene D. Minton, John A. Weeks  
 Assistant Professors: Norman L. Delventhal, Charles Kettles, Willis P. Norton, Alfred C. Roth, Keith Dusenberry  
 Instructor: Walter Tucker

The department offers curricula in computer technology and industrial technology leading to a Bachelor of Science degree and two year programs in pre-architecture and pre-engineering. Program and course requirements for each curriculum, major or minor available in the Department are described on the pages indicated below:

## I. Curricula and majors:

- A. Computer Technology Curriculum (Page 278)
  - 1. Computer Aided Design Technology Major (Page 278)
- B. Industrial Technology Curriculum (Page 278)
  - 1. Construction Technology Major (Page 279)
  - 2. Industrial Technology Major (Page 279)
  - 3. Manufacturing Technology Major (Page 279)
- C. Pre-Architecture Curriculum (Page 280)
- D. Pre-Engineering Curriculum (Page 281)

## II. Minor:

- A. Industrial Technology Minor (Page 280)

The Industrial Technology Department offers graduate work leading to the Master of Science degree in Industrial Technology. Please consult the EMU Graduate Catalog for descriptions of graduate courses and programs.

## INDUSTRIAL TECHNOLOGY COURSES

New courses are identified with a bullet •

**IT 121 Graphic Communication.** Three sem hours  
 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.

**IT 122 Technical Drawing.** Three sem hours  
 The application of technical sketching and mechanical drawing. Planned and organized especially for pre-engineering, industrial education and industrial technology majors. Lecture: two hours per week. Laboratory: two hours per week.

**IT 123 Metal Processes.** Three sem hours  
 Survey and analysis of fundamental metal processes used in manufacturing. Emphasis upon theory and application in joining, forming, cutting, treating and physical testing of metals. Lecture: two hours per week. Laboratory: two hours per week.

**IT 127 Basic Architectural Drawing.** Three sem hours  
 An introduction to architectural drawing techniques with emphasis on lettering, line quality, scale and organization. Orthographic projection; isometric and oblique drawings are covered. Emphasis on one- and two-point perspective. Lecture: two hours per week. Laboratory: two hours per week.

**IT 128 Architectural Drawing I.** Three sem hours  
 A beginning course dealing with the basic skills and techniques used in architectural drawing, the basic principles of architectural construction drawings, their scope, content and preparation, a survey of current building practices and use of materials. Identification of various sources of technical data regarding building materials and development of competence in using technical data for architectural problem solving. Lecture: two hours per week. Laboratory: two hours per week. Prereq: A course in instrument drawing.

**IT 170 Aviation Ground Instruction.** Three sem hours  
 Basic flight training ground instruction and practice in the following: aircraft theory, aerial navigation, civil air regulations, meteorology and radio. Instruction is directed toward preparation for the private pilot written examination.

**IT 200 Industrial Electricity.** Three sem hours  
 The application of fundamental electrical concepts and principles. Topics include direct and alternating current, resistance, reactance, basic electrical machines, and controls. The use of meters and test equipment is emphasized. Lecture: two hours per week. Laboratory: two hours per week.

**IT 201 Construction Technology.** Three sem hours  
 Experiences in the planning, developing and erecting of on-site structures. Units include construction specifications, site selection, material usage, testing, principles of construction and fabrication, estimating, managing and cost control. Lecture: two hours per week. Laboratory: two hours per week.

**IT 202 Plastics.** Three sem hours  
 A study of the plastics industry, including an analysis of material properties and identification, processing techniques and the application of design to product manufacture. Lecture: two hours per week. Laboratory: two hours per week.

**IT 203 Manufacturing Technology.** Three sem hours  
 Technological experiences and practices in the production of manufactured goods. Units include planning, organizing and controlling manufacturing production systems, personnel practices, and pre-processing, processing and servicing practices. Lecture: two hours per week. Laboratory: two hours per week.

Prereq: IT 122 Technical Drawing or IT 127 Basic Architectural Drawing or IT 128 Architectural Drawing I.

**IT 205 Photo-Technology.** Two sem hours  
 A study of the applications of light sensitive materials used in industry to include photo-drafting, photofabrication and photo reproduction. Lecture: one hour per week. Laboratory: two hours per week.  
 Prereq: IT 121 Graphic Communication and a chemistry course.

**IT 206 Surveying.** Three sem hours  
 Embraces the fundamental use of the transit and level. Exercises include linear measurement, angle measurements, extending straight lines, differential and profile leveling, a simple traverse survey and the keeping of accurate notes. Lecture: Two hours per week. Laboratory: two hours per week.  
 Prereq: MTH 107 Plane Trigonometry.

**IT 207 Photographic Reproduction.** Three sem hours  
 Study and laboratory work in photomechanics, stripping and platemaking as applied to offset presswork. Includes the preparation of layout material for printing. Lecture: one hour per week. Laboratory: two hours per week.  
 Prereq: IT 121 Graphic Communication or IE 104 Graphic Arts Processes.

**IT 213 Occupational Safety and Health.** Three sem hours  
Philosophical, social, economic and technological bases of safety are investigated. Includes study of accident statistics, analysis of accident data, accident causation, federal and state safety legislation, and employer-employee roles in occupational safety. Appropriate for anyone with an interest in occupational safety and health.

**IT 215 Machine Tool Metalworking.** Three sem hours  
A study of machine tools and metalworking processes including turning, drilling, shaping, milling and grinding. Principles of tooling, precision measurement, identification and classification of metals are applied. Lecture: two hours per week. Laboratory: two hours per week.

**IT-217 Structure of Industry.** Three sem hours  
An analysis of the formal and informal organization of that institution in our society responsible for the production of goods and services. Units include formal organization, research and development, financial organization, production, union organization, and industrial visitations.

**IT 218 Energy Systems.** Three sem hours  
An introduction to the technical systems used to convert energy to useful power. Concern is directed at laboratory problems using technical equipment that includes gasoline, diesel, steam, reaction, and gas turbine engines. Also, nuclear power, turbines, wind, solar, and alternate energy areas are considered. Lecture: two hours per week. Laboratory: two hours per week.

**IT-219 Techniques of Energy Control.** Three sem hours  
An introduction to the use of tools, materials, machines, equipment, supplies and mechanisms utilized in power mechanics for energy control. Lecture: two hours per week. Laboratory: two hours per week.

**IT-223 Descriptive Geometry.** Three sem hours  
A drawing course involving geometrical constructions as related to distances, angles, intersections and the development of surfaces. Orthographic projection and geometrical theory are related to technical descriptions. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT-122 Technical Drawing.

**IT-229 Architectural Drawing II.** Three sem hours  
This course is a continuation of 128 Architectural Drawing I. Emphasizes the application of design through materials, techniques and principles. Field problems form the basis for application of principles and practices learned. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT-128 Architectural Drawing I.

**IT 231 Industrial Computer Graphics.** Three sem hours (formerly 391)  
The use of the digital plotter and the cathode ray terminal in solving graphics problems by computer. Fortran programming is desirable, but not required as a prerequisite. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: MTH-107 Plane Trigonometry, or department permission.

**IT-251 Materials Analysis and Testing.** Three sem hours  
Study of the structure, characteristics and working qualities of common industrial materials. Lecture: two hours per week. Laboratory: two hours per week.

**IT 304 Advanced Photographic Communication.** Three sem hours  
Photographic theory and techniques, with particular emphasis upon commercial and industrial applications. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IE 204 Photographic Communication. The student must furnish a camera and photo materials.

**IT 306 Plastic Processing.** Three sem hours  
A study of high polymers, basic resin types and their application to molding and fabricating processes. Analysis of chemical and physical properties, mold design and problems of production. Emphasis on experimentation and testing. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT 202 Plastics.

**IT 310 Graphic Arts Workshop.** Three sem hours  
Selected topics in the field of graphic arts technology, such as composition, press work, screen process, and advanced photo-mechanics. The class schedule describes the specific topic offered. May be repeated for additional credit.  
Prereq: IT 207 Photographic Reproduction or permission of the department.

**IT 314 Integrated Circuits.** Three sem hours  
The integrated circuit and its applications in industry. Digital control and computer circuits are considered. Lecture: two hours per week. Laboratory: two hours per week.

**IT 316 Advanced Machining Processes.** Three sem hours  
A study of advanced machining techniques. Modern processes such as electrical discharge, numerical control, chipless forming and ultrasonic machining are examined. Extensive practice with machine tools is offered. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT 215 Machine Tool Metalworking.

**IT 318 Energy Transfer Systems.** Three sem hours  
Mechanical, fluidic and electrical methods of energy transfer are presented. Principles of hydraulics, pneumatics, electro-mechanical control, and direct drive mechanisms provide a base for laboratory experimentation in these methods. Lecture: two hours per week. Laboratory: two hours per week.

**IT 319 Automotive Technology.** Three sem hours  
A basic course to provide a description of the design, construction, operation and service techniques used on selected automotive components. Lecture: two hours per week. Laboratory: two hours per week.

**IT 324 Industrial Drawing.** Three sem hours  
The intermediate aspects of drawing. Orthographic projection, auxiliary projection, sections, technical and structural drafting procedures, sheet metal layout and topographical drawing are included. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT 223 Descriptive Geometry.

**IT 387 Cooperative Education in Industrial Technology.** Three sem hours (formerly 394)  
The 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. Graded credit/no credit. Credit applicable to the major in industrial technology or industrial teacher education only.

**IT 400 Site Planning and Development.** Three sem hours  
Analysis of site characteristics and the implications for arranging structures in harmony with the environment and each other. Lecture: two hours per week.  
Prereq: IT 201 Construction Technology.

**IT 401 Construction Estimating and Bidding.** Two sem hours  
The principles and procedures for developing estimates, bids and contracts for residential and commercial construction. Lecture: one hour per week. Laboratory: two hours per week.  
Prereq: IT 201 Construction Technology.

**IT 402 Construction Materials.** Three sem hours  
The characteristics, specifications and applications of basic construction materials. Stone, concrete, wood, glass, plastics, metals and bituminous products will be included. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT 201 Construction Technology.

**IT 403 Production Control in Construction.** Two sem hours  
An investigation of the methods of control used in the construction industry for production problems involving the estimate, bidding schedules, cost analysis, cost comparison, scheduling systems, evaluation and debriefing.  
Prereq: IT 401 Construction Estimating and Bidding.

**IT 404 Photo Communication Workshop.** Three sem hours  
Selected topics in photo communications, such as commercial and industrial photography, photo journalism, sensitometry and photo processing. The class schedule describes the specific topic being offered during a given semester. May be repeated for additional credit.  
Prereq: IT 304 Advanced Photographic Communication.

**IT 414 Solid State Electronics.** Three sem hours (formerly 214)  
This application of fundamental electronics concepts and principles. Topics include diodes, junction and field effect transistors, power supplies, and basic amplifiers. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT 200 Industrial Electricity.

**IT 415 Communication Circuits.** Two sem hours (formerly 315)  
Concepts and principles of electronics as applied to radio and television circuits. Emphasis on superheterodyne configuration. Lecture: one hour per week. Laboratory: two hours per week.

**IT 420 Materials Handling.** Three sem hours  
The principles and practices for efficiently handling material within a manufacturing industry. Concepts such as transporting, storing, routing and protecting will be applied in laboratory and on-site settings. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT 203 Manufacturing Technology.

**IT 424 Industrial Plant Facilities and Planning.** Three sem hours  
Designed to provide a basic knowledge of planning procedures related to small plant and heavy industrial production. Includes the treatment of 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, personnel facilities.

**IT 428 Control and Instrumentation.** Three sem hours  
The application of electricity, hydraulics, pneumatics, and fluidics in control of machines and processes. Both digital and analog systems and instrumentation are considered. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT 200 Industrial Electricity and IT 318 Energy Transfer Systems.

**IT 431 Interactive Industrial Computer Graphics.** Three sem hours  
The use of the cathode ray terminal and/or peripheral equipment to interactively create and change graphic output. Instruction will include the use of the interactive digital plotter, digitizing tablet and the interactive buffer.  
Prereq: IT 231 Industrial Computer Graphics (formerly 331).

• **IT 432 Introduction to Computer-Aided Design.**  
Application of computer graphics to computer-aided design using stand-alone graphics systems. Included will be instruction on the use of flexible discs, magnetic tape, digitizing tablet and digital plotter.  
Prereq: IT 431 Interactive Industrial Computer Graphics.

• **IT 433 Advanced Topics in Computer-Aided Design.**  
Advanced computer-aided design applications using both stand-alone and time-sharing computer systems. Instruction will include: graphic data bases, dynamic graphics, menus, and dimensioning.  
Prereq: IT 432 Introduction to Computer-Aided Design.

**IT 434 Microcomputer Circuits.** Three sem hours  
The microprocessor and its applications in the control of machines and industrial processes. Lecture: two hours per week. Laboratory: two hours per week.  
Prereq: IT 314 Integrated Circuits and a computer programming course.

**IT 487 Cooperative Education in Industrial Technology.** Three sem hours (formerly 494)  
The second in a two-course sequence for industrial technology majors. The students will be placed on a job that relates to their primary area of study for one semester. Regular employee benefits may be received. Credit applicable to the major in industrial technology only. Graded credit/no credit.  
Prereq: IT 387 Cooperative Education in Industrial Technology.

**IT 497, 498, 499 Directed Study.** One, two and three sem hours  
Available to selected students who have demonstrated ability to profit from a directed study project. Provides opportunity for 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-chairman.



## COMPUTER TECHNOLOGY CURRICULUM

### Bachelor of Science Degree

Adviser Chairperson: Jeffrey Luftig

(487-2040)

Department of Industrial Technology

This curriculum prepares individuals for careers in computer technology occupations. The first major approved under this curriculum is the Computer Aided Design Technology program listed in this catalog. It is expected that additional programs such as a major in Computer Aided Manufacturing Technology will be available in the near future.

	Semester Hours
Group I Language .....	8
ENG 121 English Composition .....	3
ENG 424 Technical Writing .....	3
SPH 121 Fundamentals of Speech .....	2
Group II Science and Mathematics .....	30
CHM 119 Fundamentals of Chemistry .....	4
MTH 107 Plane Trigonometry .....	2
MTH 122 Elementary Linear Algebra .....	2
MTH 137 Introduction to Computer Programming .....	3
MTH 238 Topics in Computer Science .....	3
MTH 239 Assembly and Machine Language Programming .....	3
PHY 221 Mechanics, Sound and Heat .....	4
PHY 222 Electricity and Light .....	4
Approved Electives .....	5
Group III Social Sciences .....	12
ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
One history course .....	3
PLS 112 American Government .....	3
or	
PLS 202 State and Local Government .....	
Humanities Area (Required) .....	11-12
PHI 130 Introduction to Logic .....	3
One course in arts, music, or dramatic arts .....	2-3
Two courses in English Literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
Academic Major .....	50
Computer Aided Design Technology	
(See major requirements following curriculum requirements.)	
Group VII Physical Education and Health .....	2
Physical Education Activity Course .....	2
NOTE: Two semester hours of military science may be applied toward this requirement.	
Free Electives .....	10-11
Total .....	124

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed.

**Computer Aided Design Technology Major** (To be completed only in conjunction with the Bachelor of Science degree and the computer technology curriculum.)

Adviser Chairperson: Jerald Griess

(487-2040)

The computer aided design technology curriculum is designed to prepare personnel for computer graphics positions

in engineering firms, architectural firms, computer graphics equipment manufacturing, software houses, and all types of manufacturing industries. Placement potential for graduates of this program is expected to be excellent throughout the 1980s.

Total Hours Required .....	50
IT 122 Technical Drawing .....	3
IT 123 Metal Processes .....	3
IT 203 Manufacturing Technology .....	3
IT 215 Machine Tool Metalworking .....	3
IT 217 Structure of Industry .....	3
IT 223 Descriptive Geometry .....	3
IT 231 Industrial Computer Graphics .....	3
IT 314 Integrated Circuits .....	3
IT 318 Energy Transfer Systems .....	3
IT 387 Cooperative Education in Industrial Technology .....	3
IT 431 Interactive Industrial Computer Graphics .....	3
IT 432 Introduction to Computer Aided Design .....	3
IT 433 Advanced Topics in Computer Aided Design .....	3
IT 434 Microcomputer Circuits .....	3
MGT 382 Introduction to Management .....	3
AND	
MGT 384 Personnel Administration .....	3
OR	
MGT 386 Organization Theory and Development .....	3
Approved Electives .....	2

## INDUSTRIAL TECHNOLOGY CURRICULUM

### Bachelor of Science Degree

Adviser Chairperson: Jeffrey T. Luftig

(487-2040)

Department of Industrial Technology

This curriculum prepares men and women for careers in technical management oriented occupations. A base of studies in the sciences provides the understanding of necessary principles underlying various technical problems in a rapidly changing industrial environment. The program is designed to qualify students for both technical and supervisory roles such as process engineers, research specialists, production engineers, quality control, designers, contracting estimators and safety specialists.

The student enrolled in this curriculum may major in industrial technology, manufacturing technology, or construction technology.

	Semester Hours
Group I Language .....	8-9
One course in English composition or, if eligible, a foreign language course.	
One course in fundamentals of speech.	
ENG 424 Technical Writing .....	3
*Group II Science and Mathematics .....	30

\*If this sequence is not followed, the student must complete a specific 20-hour science minor and 10 hours of adviser approved electives in Group II. The sequence of courses given here assumes a high school preparation including three semesters of algebra, plane and solid geometry, a year of physics and a year of chemistry. A deficiency in any of these subjects, with the exception of solid geometry, will necessitate a change of program in order to provide the necessary background as soon as possible.

CHM 131 General Chemistry I .....	5
CHM 241 Materials Science .....	3
MTH 105 College Algebra .....	3
MTH 107 Plane Trigonometry .....	2
PHY 221 Mechanics, Sound and Heat .....	4
PHY 222 Electricity and Light .....	4
PSY 101 General Psychology .....	3
Electives: Mathematics, Physics or Chemistry ..	6
Group III Social Sciences .....	12-14
One History course .....	3
Either of the following: .....	6-8
ECO 201 Principles of Economics I, and	
202 Principles of Economics II, or	
200 The American Economy and an	
approved two course sequence	
Either of the following: .....	3
PLS 112 American Government or	
202 State and Local Government	
Humanities .....	11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.	
One course in philosophy or religion.	
One course in arts, music or dramatic arts.	
Group VI Industrial Technology Core .....	18
IT 122 Technical Drawing or IT 128 Architectural Drawing I .....	3
IT 123 Metal Processes .....	3
IT 200 Industrial Electricity .....	3
IT 201 Construction Technology or	
IT 203 Manufacturing Technology .....	3
IT 202 Plastics .....	3
IT 213 Occupational Safety and Health .....	3
Academic Major (Select One) .....	32
Construction Technology	
Industrial Technology	
Manufacturing Technology	
Group VII Physical Education and Health .....	2
Physical Education activity courses .....	2
Note: Two semester hours of military science may be applied toward this requirement.	
Free Electives .....	7-11
Total .....	124

	Semester Hours
Electives .....	13
IE 305 Forest Products .....	3
IT 223 Descriptive Geometry .....	3
IT 231 Industrial Computer Graphics .....	3
IT 387 Cooperative Education in Industrial Technology .....	3
IT 487 Cooperative Education in Industrial Technology .....	3
(May elect a maximum of six hours from the following:)	
BIO 224 Principles of Conservation .....	4
ECO 322 American Labor Unions .....	3
GEO 301 Cartography .....	3
GEO 315 Land Use Planning .....	3
GEO 327 Soil Science .....	2
MGT 302 Business Communications .....	3
MGT 382 Introduction to Management .....	3
PSY 351 Industrial Psychology .....	3
SOC 307 Industrial Sociology .....	3

**Industrial Technology Major** (To be completed only in conjunction with the Bachelor of Science degree and the industrial technology curriculum.)

Adviser Chairperson: **Jeffrey T. Luftig**  
(487-2040)

This major provides for a broad selection of courses in industrial technology, mathematics, science, management, and marketing. The program is designed to accommodate community college transfer students who have already developed strong technical concentrations and other students who wish to develop a broad technical background. A maximum of six hours from the thirty-two hours may be taken as related non-departmental courses.

Total Hours Required .....	32
Required Course .....	3
IT 217 Structure of Industry .....	3
Elective Courses .....	29
Elective courses are to be selected in consultation with the academic adviser.	

**Manufacturing Technology Major** (To be completed only in conjunction with the Bachelor of Science degree and the industrial technology curriculum.)

Adviser Chairperson: **William McPherson**  
(487-2040)

This major prepares individuals for technical and middle management supervisory positions in manufacturing industries. Specific positions held by graduates include process engineers, research specialists, production technologists, designers, project managers, field superintendents, and safety specialists.

	Semester Hours
Total Hours Required .....	32
Required Courses .....	21
IT 215 Machine Tool Metalworking .....	3
IT 217 Structure of Industry .....	3
IT 223 Descriptive Geometry .....	3
IT 231 Industrial Computer Graphics .....	3
IT 318 Energy Transfer Systems .....	3
IT 420 Materials Handling or	
IT 424 Industrial Plant Facilities and Planning .....	3
IT 428 Control and Instrumentation .....	3

**Construction Technology Major** (To be completed only in conjunction with the Bachelor of Science degree and the industrial technology curriculum.)

Adviser Chairperson: **John Weeks**  
(487-2040)

This major prepares individuals for middle management careers in the residential and commercial construction industry.

Total Hours Required .....	32
Required Courses .....	19
IT 206 Surveying .....	3
IT 217 Structure of Industry .....	3
IT 229 Architectural Drawing II .....	3
IT 400 Site Planning and Development .....	3
IT 401 Construction Estimating and Bidding .....	2
IT 402 Construction Materials .....	3
IT 403 Production Control in Construction .....	2

Electives .....	11
IT 121 Graphic Communication .....	3
IT 205 Photo-Technology .....	2
IT 207 Photographic Reproduction .....	3
IT 218 Energy Systems .....	3
IT 219 Techniques of Energy Control .....	3
IT 251 Materials Analysis and Testing .....	3
IT 306 Plastic Processing .....	3
IT 310 Graphic Arts Workshop .....	3
IT 314 Integrated Circuits .....	3
IT 316 Advanced Machining Processes .....	3
IT 324 Industrial Drawing .....	3
IT 387 Cooperative Education in Industrial Technology .....	3
IT 414 Solid State Electronics .....	3
IT 487 Cooperative Education in Industrial Technology .....	3
(May elect a maximum of six hours from the fol- lowing:)	
BIO 224 Principles of Conservation .....	4
ECO 322 American Labor Unions .....	3
MGT 302 Business Communications .....	3
MGT 382 Introduction to Management .....	3
PSY 351 Industrial Psychology .....	3
SOC 307 Industrial Sociology .....	3

### Industrial Technology Minor

Adviser Chairperson: Clois Kicklighter  
(487-2040)  
Department of Industrial Technology

The minor in industrial technology is designed to serve majors in industrial, business and science related subjects. Employment opportunities for persons with majors in these subject areas are often enhanced with studies in technical courses such as those offered in this minor.

Elective courses in the minor will be selected to relate to the student's major subject area. Academic advising to determine elective course choices will be provided by the Department of Industrial Technology. A maximum of six semester hours will be transferred from outside the department.

	<b>Semester Hours</b>
Total Hours Required .....	24
Required Course .....	3
IT 201 Construction Technology OR IT 203 Manufacturing Technology .....	3
Select from the following .....	5-6
IT 121 Graphic Communication .....	3
IT 122 Technical Drawing OR IT 127 Basic Architectural Drawing .....	3
IT 204 Photo-Communication .....	2
IT 213 Occupational Safety and Health .....	3
IT 217 Structure of Industry .....	3
Electives .....	15-16

### PRE-ARCHITECTURE CURRICULUM

Adviser Chairperson: Charles Kettles  
(487-2040)  
Department of Industrial Technology

This curriculum is designed for students who wish to transfer to an architecture program at another university. The student is encouraged to select a specific university for transfer as early as possible so that prerequisites of that school can be considered.

Courses in this curriculum will apply to a number of four-year programs at Eastern Michigan University if the student chooses to remain on this campus.

#### First Year

	<b>Semester Hours</b>
<b>First Semester</b> .....	16
ENG 121 English Composition .....	3
FA 123 Drawing I .....	3
HUM 101 Rome and America .....	6
MTH 120 Calculus I .....	4
<b>Second Semester</b> .....	16
ECO 201 Principles of Economics I .....	3
HUM 122 American Studies .....	3
*IT 122 Technical Drawing .....	3
MTH 121 Calculus II .....	4
Physical education activity or military science .....	1
Electives .....	2

#### Second Year

<b>First Semester</b> .....	16
FA 122 Two-Dimensional Design .....	3
GEO 108 Earth Science .....	4
IT 206 Surveying .....	3
PHY 221 Mechanics, Sound and Heat .....	4
Electives .....	2
<b>Second Semester</b> .....	16
ECO 202 Principles of Economics II .....	3
**IT 128 Architectural Drawing .....	3
PHY 222 Electricity and Light .....	4
Physical education activity or military science .....	1
Electives .....	5

Suggested Electives:

ANT 135 Introduction to Cultural Anthropology .....	3
BOT 209 Ornamental Plants .....	2
FA 107 Art History Survey I .....	3
GEO 324 Weather and Climate .....	3
GEO 327 Soil Science .....	3
IT 231 Industrial Computer Graphics .....	3
MTH 237 Computer Programming .....	3
SOC 105 Introductory Sociology .....	3

\*Substitute IT 128 Architectural Drawing I for IT 122, if student has had 1 year of high school mechanical or architectural drawing.

\*\*Then substitute IT 299 for IT 128 in the fourth semester.

Elective choices to be made through consultations with the adviser chairperson of the industrial technology curriculum.

## PRE-ENGINEERING CURRICULUM

Adviser Chairperson: **Norman Delventhal**  
(487-2040)  
Department of Industrial Technology

This curriculum is designed for the student who wishes to transfer to an engineering program at another university. Courses in this curriculum are common to most branches of engineering. The student, however, is encouraged to select an engineering specialty as early as possible, so that prerequisites of that engineering school can be considered.

Courses in this curriculum will apply to a number of four-year programs at Eastern Michigan University if the student chooses to remain on this campus.

### First Year

	Semester Hours
<b>First Semester</b> .....	16
CHM 131 General Chemistry I .....	5
ENG 121 English Composition .....	3
IT 122 Technical Drawing .....	5
MTH 120 Calculus I .....	4
Physical Education activity or military science ..	1
<b>Second Semester</b> .....	15
IT 223 Descriptive Geometry .....	3
MTH 121 Calculus II .....	4
MTH 122 Elementary Linear Algebra .....	2
PHY 223 Mechanics, Sound and Heat .....	5
Physical Education activity .....	1

### Semester Hours

### Second Year

<b>First Semester</b> .....	16
ECO 201 Principles of Economics I .....	3
MTH 223 Multivariable Calculus .....	4
PHY 224 Electricity and Light .....	5
PHY 230 Engineering Dynamics .....	4
<b>Second Semester</b> .....	16
CHM 241 Materials Science .....	3
ECO 202 Principles of Economics II .....	3
PHY 229 Strength and Elasticity of Materials ...	4
MTH 237 Introduction to Computer Programming and Numerical Methods .....	3
Mathematics elective (often MTH 325 Differential Equations and Vector Analysis) .....	3
<b>Suggested Electives:*</b>	
HIS 100 The Comparative Study of Religion ...	3
PHI 200 Types of Philosophy .....	3
PLS 112 American Government .....	3
SOC 105 Introductory Sociology .....	3
SPH 121 Fundamentals of Speech .....	2
One course in history .....	3
A course in literature .....	3

The sequence of courses given here assumes a high school preparation including three semesters of algebra, plane and solid geometry, a year of physics and a year of chemistry. A deficiency in any of these subjects, with the exception of solid geometry, will necessitate a change of program in order to provide the necessary background as soon as possible. It is recommended that students who are deficient in any of these subjects plan to make them up during the summer in a high school program, junior college or at Eastern in order to complete the engineering program in the customary time.

\*These courses are suggested as possible electives because they will transfer to and fit easily into the programs of, for example, the University of Michigan School of Engineering.

For the two-year program, students must complete two semester hours in physical education activity courses or receive a similar amount of credit using the military science options appearing on page 34. However, if changing to a four-year curriculum, the student must satisfy the activity hour requirements of that curriculum.

The following third-year courses are available:

Aeronautical Engineering: MTH 325, Differential Equations and Vector Analysis; MTH 420, Introduction to Analysis.

Chemistry and Metallurgical Engineering: Make the following replacement in the first semester of sophomore year: PHY 230 Engineering Dynamics with CHM 132 General Chemistry II. The program for the second semester will be made by replacing PHY 229 Strength and Elasticity of Materials with CHM 281 Quantitative Analysis. Further available courses include: CHM 371, Organic Chemistry; CHM 372, Organic Chemistry; CHM 461, Physical Chemistry.

Civil Engineering: IT 206 Surveying; GEO 326, Structural Geology.

Electrical Engineering: PHY 456 Electronics for Scientists; PHY 452, Electrical Measurements; MTH 325, Differential Equations and Vector Analysis.

Industrial Engineering: 240 Principles of Accounting.

Mechanical Engineering: PHY 430, Intermediate Mechanics I; PHY 431, Intermediate Mechanics II; PHY 460, Heat and Thermodynamics.





## INTERDISCIPLINARY TECHNOLOGY

Department Head: Paul D. Kuwik (Acting)  
 Professor: John C. Graham  
 Associate Professor: Alexandra B. Aldridge

The department was initiated in September of 1981. Programs in this department will draw heavily from other disciplines throughout the University. Initial programs approved for the department include an undergraduate program in Polymers and Coatings Technology and a technology concentration on the Master of Liberal Studies program. Program and course requirements for the Polymers and Coatings Technology curriculum are described below. For descriptions of graduate programs available in the Department, please consult the EMU Graduate Catalog.

### INTERDISCIPLINARY TECHNOLOGY COURSES

New courses are identified with a bullet •

• **IDT 214 Rubber Technology I.** **Two sem hours**  
 Lectures and laboratory experiments on the fundamentals of rubber chemistry, compounding and processing technology, and rubber testing methods.  
*Prereq:* High school or college course in chemistry or approval of instructor.

**IDT 387 Cooperative Education in Interdisciplinary Technology.** **Three sem hours**  
 A minimum of three to four months of full-time employment in a business or industry which 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:* Permission of the department.

• **IDT 400 Coatings Technology I.** **Three sem hours**  
 Introduction to synthesis, film formation, structure and properties of polymers commonly used in coatings. Polymer systems to be covered include acrylic, vinyls, polyesters, alkyds, oils, epoxies, epoxyesters, aminoplasts, urethanes, phenolics, hydrocarbons, celluloseics, etc. Also included is the use of pigments in coatings.  
*Prereq:* CHM 270 Organic Chemistry, CHM 271 Organic Chemistry Laboratory, CHM 345 Polymer Chemistry, and CHM 346 Polymer Chemistry Lab.

• **IDT 401 Coatings Technology I Laboratory.** **Three sem hours**  
 Synthesis, characterization and identification of polymers used in coatings. Specifically covers the synthesis of solution acrylic, vinyl, acrylic emulsion, polyester, alkyd, epoxyester, melamine formaldehyde and urethane polymers with extensive use of physical techniques such as G.C., I.R., G.P.C. and calorimetry. Pigment dispersion and use of the colorimeter also covered.  
*Coreq:* IDT 400 Coatings Technology I.

• **IDT 402 Coatings Technology II.** **Three sem hours**  
 Formulation in oil-based and waterborne coatings covering the use of solvents and additives. Principles of adhesion and corrosion and the use of conversion coatings. Topics include safety, health, government regulations and paint production techniques.  
*Prereq:* IDT 400 Coatings Technology I.

• **IDT 403 Coatings Technology II Laboratory.** **Three sem hours**  
 Practical formulation in oil-based and waterborne systems including the preparation and evaluation of various topcoats and primers currently used in the coatings industry (e.g., oil based air dry enamel, thermosetting coating, epoxyester primer, two package urethane, acrylic latex and E.D. primer).  
*Coreq:* IDT 402 Coatings Technology II.

• **IDT 414 Rubber Technology II.** **Two sem hours**  
 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 Rubber Technology I or approval of instructor.

• **IDT 460 Advanced Coatings Topics.** **Three sem hours**  
 This course is designed to provide students with an opportunity to develop in-depth formulating skills and to advance their knowledge in new technology areas in coatings and polymers.  
*Prereq:* IDT 402 Coatings Technology II, IDT 403 Coatings Technology II Laboratory or permission of instructor.

**IDT 477, 478, 479 Special Topics in Interdisciplinary Technology.** **One, two, three sem hours**  
 An examination of topics in interdisciplinary technology not covered in other departmental offerings. Students may elect these courses more than once as long as different topics are studied.  
*Prereq:* Permission of the department.

**IDT 487 Cooperative Education in Interdisciplinary Technology.** **Three sem hours**  
 The second in a two-course sequence for majors in an interdisciplinary technology program. A minimum of three to four months of full-time employment in a business or industry which 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:* Permission of the department.

**IDT 497, 498, 499 Independent Study.** **One, two, three sem hours**  
 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:* Permission of the department.

## POLYMERS TECHNOLOGY CURRICULUM

### Bachelor of Science Degree

Adviser Chairperson: John C. Graham  
 (487-1161)

Department of Interdisciplinary Technology

The polymers technology 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.

Semester Hours

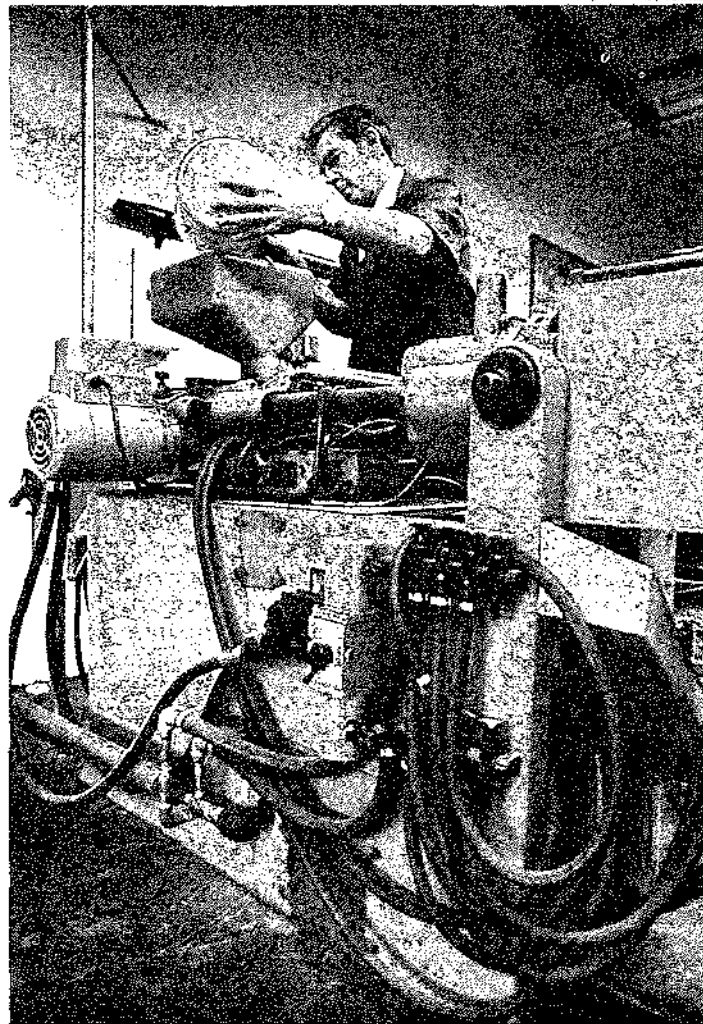
Group I Language .....	8
ENG 121 English Composition .....	3
ENG 424 Technical Writing .....	3
SPH 121 Fundamentals of Speech .....	2
Group II Science and Mathematics .....	34-35
CHM 131 General Chemistry I .....	5
CHM 132 General Chemistry II .....	4
CHM 241 Materials Science .....	3
CHM 242 Materials Science Lab .....	1
CHM 345 Polymer Chemistry .....	3
CHM 346 Polymer Chemistry Lab .....	1
CHM 381 Instrumentation for Chemical Technol- ogy .....	2
MTH 105 College Algebra .....	3
MTH 107 Trigonometry .....	2
or	
MTH 120 Calculus I .....	4
MTH 137 Intro. to Computer Programming .....	3
PHY 221 Mechanics, Sound, and Heat .....	4
PHY 222 Electricity and Light .....	4
Group III Social Science .....	12
One History Course .....	3
ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
PLS 112 American Government .....	3
Humanities .....	6
Two courses in literature in the English Depart- ment, or two intermediate foreign language courses, or two advanced foreign language lit- erature courses.	
One course in philosophy or religion.	
One course in art, music, or dramatic arts.	
Academic Major .....	42
Polymers and Coatings Technology	
Group VII Physical Education and Health .....	2
Physical Education Activity courses .....	2
Note: Two semester hours of military science may apply toward this requirement.	
Free Electives .....	13-15
Total .....	124

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed.

**Polymers and Coatings Technology Major** (To be completed only in conjunction with the Bachelor of Science degree and the polymers technology curriculum.)

The polymers and coatings field involves the synthesis of polymers and formulation of protective coatings for various substrates commonly used in industry. The spectacular growth of the coatings industry over the past few years coupled with an increase in government regulations and technology has increased the need for highly skilled scientific personnel to work in the coatings field. Traditionally, this field has employed B.S. degree holders in chemistry or related disciplines who received on-the-job training in the coatings field. This program is designed to minimize on-the-job training and supply industry with scientific personnel specifically trained for the coatings field.

Total Hours Required .....	42
Required Courses .....	36
CHM 281 Quantitative Analysis .....	4
CHM 371 Organic Chemistry I .....	3
CHM 372 Organic Chemistry II .....	3



CHM 373 Organic Chemistry Lab .....	2
IDT 400 Coatings I .....	3
IDT 401 Coatings Laboratory .....	3
IDT 402 Coatings II .....	3
IDT 403 Coatings Laboratory .....	3
IDT 460 Advanced Coatings Topics .....	3
IDT 487 Cooperative Education in Interdiscipli- nary Technology .....	3
IT 202 Plastics .....	3
MKT 360 Principles of Marketing .....	3
Select two of the following four courses .....	6
CHM 415 Environmental Chemistry, or	
IT 213 Occupational Safety and Health .....	3
IDT 387 Cooperative Education in Interdiscipli- nary Technology .....	3
IT 251 Materials Testing and Analysis .....	3

Note: If students have free electives in their program of study, the following courses are recommended:

CHM 340 Industrial Chemistry .....	3
CHM 411 Toxicology I .....	2
CHM 480 Computer Instrument Interface .....	3
ECO 310 Economic Statistics, or	
ORI 265 Business Statistics .....	3
IT 306 Plastic Processing .....	3

## MILITARY SCIENCE

**Department Head:** Lieutenant Colonel Richard M. Smith  
**Assistant Professors:** Major Robert C. McKenzie, CPT William P. Parker, CPT Dwight E. Phillips, CPT Steven R. Bol

The military science program provides men and women training in an unique curriculum which permits entry into the active Army, Army Reserve or National Guard as a commissioned officer. Emphasis is given to the development of the student as a manager capable of organizing, motivating and leading others. See the description of the program on page 285.

### COURSES

New courses are identified with a bullet •

**MS 100 Fundamentals of Leadership and Management I, First Year – Basic Program. Two sem hours**

An introduction to the U.S. defense establishment with emphasis on the role and structure of the U.S. Army as compared to those of the Soviet Union. Students also participate in adventure mini-courses (rappelling, rifle marksmanship, first aid and others).

**MS 101 Fundamentals of Leadership and Management II, First Year – Basic Program. Two sem hours**

An introduction to role of the Army officer and the ethics and professional responsibilities associated. Within the course students participate in a choice of adventure mini-courses.

**MS 200 Applied Leadership and Management I, Second Year – Basic Program. Two sem hours**

In this course a detailed study of small unit and individual military tactics and decision making is examined. Basic military skills in map reading and individual and squad movement are developed.

**MS 201 Applied Leadership and Management II, Second Year – Basic Program. Two sem hours**

From the individual as leader, this course proceeds to group leadership dynamics, theories and practices. Management of men and material resources in the military is also studied. Oral and communicative skills of a military leader are developed.

**MS 300 Advanced Military Leadership and Management I, First Year – Advanced Program. Three sem hours**

Leadership studies move from theory to practical application with the study and use of basic military skills. Types covered are topography, close order drill and weaponry. Laboratories allow students to put leadership and knowledge skills and techniques into practice as a small unit leader.

**MS 301 Fundamentals and Dynamics of the Military Team I, First Year – Advanced Program. Three sem hours**

A continuation of the leadership and military skills practical application studied in the previous course. Geared toward rounding out the "complete person" concept of an Army officer, leadership ability, intellectual knowledge and physical stamina. This course prepares students for the advanced summer camp experience.

**MS 302 Leadership Laboratory, First Year – Advanced Program.**

Conducted for both semesters of the 300 level courses. Allows for field application of classroom theories and studies. Emphasis is towards "hands-on" training and improving. Physical abilities are strengthened and tested. All areas of classroom instruction, drill, military skills, leadership and physical aptitude are challenged.

**MS 400 Fundamentals and Dynamics of the Military Team II, Second Year – Advanced Program. Three sem hours**  
 The organization and functioning of command and staff in company level and larger Army organizations are studied. The essentials of military law and military communication are presented. A laboratory including practical exercise and student writings complements this course.

**MS 401 Advanced Military Leadership and Management II, Second Year – Advanced Program. Three sem hours**

The essentials of the Army Personnel Management System, logistics and training management are presented. An in depth examination of ethics and professionalism as it applies to the military officer is made. A laboratory providing practical exercises and first hand experience in leadership complement this course.

**MS 402 Leadership Laboratory, Second Year – Advanced Program.**

A two-semester practicum conducted concurrently with 400 level courses, this laboratory enables the advanced student to exercise the 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.

### Credit Toward Graduation

The twelve semester hours credit earned in the Advanced Program may be used as free elective credit. Requirements in certain curricula will cause the ROTC student to take more than the minimum 124 hours credit for graduation. When finalizing their undergraduate programs, students should consult their academic advisers or the Academic Services Center on this matter.

### Uniforms, Texts, Allowances, Etc.

All uniforms and texts are provided to the student without cost. Additionally, participants receive \$100 per month during the school year and are paid at one-half the rate of a second lieutenant while attending the summer field course. Armed Forces veterans may receive the \$100 per month pay in addition to any other veterans benefits they are receiving.

### Distinguished Military Student Program

At the beginning of the final year of the Advanced Program, students who have demonstrated outstanding academic achievement and personal qualities are designated Distinguished Military Students. Designees are eligible to apply for appointment as career officers in the Regular Army.

### ROTC Scholarship Program

After completion of at least one semester in Military Science, students may apply for ROTC scholarships for 3, 2 or 1 years duration. Scholarships are awarded on a "best qualified" basis and cover payment of tuition, fees, text 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.

# MILITARY SCIENCE

The Military Science program provides men and women training in an unique curriculum which permits entry into the active Army, Army Reserve or National Guard as a commissioned officer. Emphasis is given to the development of the student as a manager capable of organizing, motivating and leading 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 is commissioned a second lieutenant concurrent with the conferring of a degree.

Special programs available through ROTC include the ROTC Scholarship Program, the Distinguished Military Student Program, the Two Year Program for transfer students, the Veterans Program and the Junior ROTC Graduate Program.

## The Basic Program

The basic program is normally entered in the freshman year. It consists of four courses in basic military subjects augmented by courses in the student's normal basic studies requirements. Completion of the Basic Program is prerequisite to entry into the Advanced Program.

### Prescribed Courses

- First Semester - 100 Fundamentals of Leadership & Management I. Two sem hours.
- Second Semester - 101 Fundamentals of Leadership & Management II. Two sem hours.
- Third Semester - 200 Applied Leadership & Management I. Two sem hours.
- Fourth Semester - 201 Applied Leadership & Management II. Two sem hours.

### Credit Toward Graduation

A maximum of eight semester hours may be awarded toward graduation for completion of the Basic Program. Two of the semester hours, at the student's option, may count toward satisfying the general requirement in Physical Education.

### Texts, Special Equipment and Uniforms

All required texts and special equipment are furnished to the student on a loan basis.

Uniforms need not be worn by students in the Basic Program. However, those students desiring to participate in ROTC related field training exercises may be issued uniforms and equipment after making a ten dollar deposit with the University. This deposit is refunded when uniforms are returned.

## The Two-Year Program

This program was designed for students transferring from community colleges and other students who were unable to enroll for the regular basic program during their first two years of college. Applicants complete a six-week training program during the summer months which takes the place of the on-campus basic program. While in summer training, the student remains a civilian but earns Army pay and travel allowances. Upon completing the program, the student may be granted eight semester hours credit upon the recommendation of the Military Science Department and may apply for entry into the Advanced Program. Students may compete for two-year ROTC Scholarships while at summer training. Applications for the two-year program are accepted from December through March.

## The Advanced Program

The advanced program consists of advanced study and practical application of military leadership. Upon completion of the advanced program and satisfaction of degree requirements, the student is awarded an Army commission. In order to enter the advanced program the student must be medically qualified, have permission of the Military Science Department, and have completed basic requirements through one of the following:

1. Completion of the Army ROTC Basic Program outlined above.
2. Completion of the Basic Program of Air Force or Navy ROTC.
3. Completion of the six-week summer training program (see the description above for the Two-Year Program)
4. Receive advanced placement based on completion of three or more years Junior ROTC and departmental approval.
5. Be a veteran with over four months active duty in any of the U.S. Armed Forces.
6. Completed Basic Training with a U.S. Army Reserve Unit.

### Prescribed Courses

- First Semester - 300 Advanced Military Leadership & Management I. Three sem hours.
- Second Semester - 301 Fundamentals and Dynamics of the Military Team I. Three sem hours.  
MS 302, Leadership Laboratory, must be taken in conjunction with both 300 level courses.
- Summer - Advanced Summer Field Course - Students who successfully complete this field course are exempt from required physical education courses.
- Third Semester - 400 Fundamentals and Dynamics of the Military Team II. Three sem hours.
- Fourth Semester - 401 Advanced Military Leadership & Management II. Three sem hours.  
MS 402, Leadership Laboratory, must be taken in conjunction with both 400 level courses.

## Minor in Military Science

Adviser Chairperson, Richard Smith  
(487-1020)  
Military Science Department  
(Non-Teaching)

### Prescribed Courses

	Semester Hours
100 Fundamentals of Leadership and Management I	2
101 Fundamentals of Leadership and Management II	2
200 Applied Leadership and Management I	2
201 Applied Leadership and Management II	2
300 Advanced Military Leadership and Management I	3
301 Fundamentals and Dynamics of the Military Team I	3
400 Fundamentals and Dynamics of the Military Team II	3
401 Advanced Military Leadership and Management II	3

NOTES: 1. Students electing a minor in military science may not use this minor to fulfill the state secondary certificate requirement of a teaching minor.  
2. Appropriate elective courses taught by other departments may be used when approved by the Military Science Department.

## Aerospace Studies

The Air Force Officer Education Program at the University of Michigan provides Eastern Michigan University students the opportunity to earn a commission as a second lieutenant in the U.S. Air Force through the Air Force ROTC (AFROTC). Four and two-year programs are offered and Aerospace Studies classes are conducted on the University of Michigan campus. Class registration is handled by AFROTC.

**Program Description:** AFROTC offers studies designed to prepare qualified candidates for a pilot, navigator, or management position in the United States Air Force. The sequence of courses provides understanding of the global mission and organization of the U.S. Air Force, historical development of air power and its support of national objectives, management responsibilities and skills, national defense policy, and the role of the officer in our society. Credit toward graduation parallels that discussed under the Military Science Program. The four-year plan comprises eight terms of courses in Aerospace Studies plus a four-week field training course at an Air Force base between the sophomore and junior years. The two-year plan comprises an initial six-week field training course followed by four terms of Aerospace Studies. The two-year program candidate must have two years of school remaining, which could consist of undergraduate or a combination of undergraduate or graduate, or solely graduate training. Contact for obtaining entrance to the two-year program should be made by February of the sophomore year to complete requirements for fall entry. Qualified students with prior military experience may participate in the two-year or four-year programs.

Supplemental course requirements for four year program cadets include the satisfactory completion of one course in English composition and one in mathematical reasoning. Two year program cadets must satisfy the mathematical reasoning course requirement.

**Scholarships and Monetary Allowances:** Four, three and two year Air Force ROTC scholarships covering full Eastern Michigan University tuition, laboratory fees, book costs, and a \$100 per month subsistence allowance are available on a competitive basis. Non-scholarship students also receive the \$100 per month subsistence in the last two years of the program.

In addition to the Aerospace Studies and supplemental course requirements described above, scholarship recipients must satisfactorily complete one academic term of a major Indo-European or Asian language.

**Flying Activities:** During their senior year, qualified students desiring to be Air Force pilots participate in a Flight Instruction Program. It provides approximately 25 hours of dual/solo light plane instruction under a licensed civilian instructor.

**Enrollment Procedure:** An Eastern Michigan University student interested in the two- or four-year programs should contact the AFROTC office at the University of Michigan for specific information on program enrollment by calling (313) 764-2403 or 764-2405, or by writing to AFROTC Detachment 390, North Hall, University of Michigan, Ann Arbor, MI 48109.

## CONTINUING EDUCATION

**Dean:** George P. Melican

**Director of Credit Programs:** Arthur N. McCafferty

**Coordinator of 2 + 2 Jackson:** Joan Schiller

**Director of Credit Free Programs:** Sandra Wright

**Director of Pupil Transportation Services:** Dale Benjamin

**Program Manager:** G. Patrick Barley

Today, more than ever before, Eastern Michigan University is realizing its responsibility to offer its services and facilities to the community at large and to the non-traditional student. For many years, the Division of Continuing Education, formerly the Office of Field Services, at Eastern Michigan University, has maintained extensive off-campus credit programs for students unable to complete their education on Eastern's campus. Credit programs and courses are available from each of Eastern's colleges: the College of Education, the College of Business, the College of Health and Human Services, the College of Technology and the College of Arts & Sciences. The program is expanding greatly at this time. In addition, the campus is open to the public for conferences both academic and non-academic, for adult education courses, for lecture series and for training programs. Faculty members and other trained personnel are available for lectures and consultation services to clubs, organizations and school systems.

The Division of Continuing Education welcomes inquiries about its program as well as suggestions for other services it might offer. Interested persons should write to the dean of Continuing Education, 319 Coodison Hall, Eastern Michigan University, Ypsilanti (487-0407).

## OFF-CAMPUS CREDIT COURSES

The Office of Continuing Education offers credit courses at 42 centers in 14 counties throughout southeastern Michigan. These classes are undergraduate and graduate courses conducted usually by regular instructors of Eastern Michigan University. At present, the classes are in practically any field connected with education, but an increasing number of courses in business, technology and human services are being offered to meet students' needs. A list of the courses offered for fall and winter semesters, spring and summer sessions may be acquired from the Division of Continuing Education. The following regulations apply to these courses.

### General Procedures and Regulations of Open Center Courses

1. Undergraduate students who enroll in off-campus courses must meet the entrance requirements of Eastern Michigan University and must matriculate at Eastern in order to receive credit towards certificates and degrees. Application blanks and details of the admission procedure may be obtained by writing Eastern Michigan University, Admissions Office. A non-matriculated student without a bachelor's degree may be permitted to take courses for one semester only, with no further enrollment permitted unless regularly admitted.
2. Students who hold a bachelor's degree register in off-campus classes under one of the following categories:
  - A. "Matriculated Student" is an individual who has been officially admitted to Eastern Michigan University either as a graduate or undergraduate student.

- B. "Non-matriculated Student" is an undergraduate who has not been officially admitted to Eastern Michigan University as an undergraduate student. (Enrollment is limited to one (1) semester only.) Non-matriculated and special students are not eligible to enroll in graduate business courses.
- C. A SPECIAL STUDENT is an individual who (a) holds bachelor's degree, (b) who has not been officially admitted to a degree program in the Graduate School. SPECIAL STUDENTS may enroll for more than one enrollment period but must recognize that enrollment as a SPECIAL STUDENT does not constitute admission to the Graduate School. Applications for Admission may be obtained in the Graduate School Office, 116 Pierce Hall (487-3400).
- Students must register by mail or in person for off-campus courses through the director of Registration, Briggs Hall, Eastern Michigan University, Ypsilanti, Michigan 48197 (487-2300).
  - Students are held to the same requirements concerning distribution of courses as are students in residence. Students should consult outlines of curricula as published in the University catalog, should make their selection of work and should consult the director of Academic Records and Teacher Certification.
  - No course will be offered for credit in off-campus courses which is not a part of the regular curricula of Eastern Michigan University.

### Fees

- Beginning Fall semester 1977, the registration procedures and policies and the tuition and fees for students taking off-campus classes are the same as for on-campus classes. See tuition and fee information on page 15.
- Students taking off-campus classes may now use the installment payment option for tuition.
- Enrollment in off-campus courses may be made by mail and should be completed well in advance of the first meeting date of the course in order to help ensure a place in the class.
- Tuition adjustment ("refund") policy for cancellation of registration or withdrawal from a class or classes is the same as for on-campus classes. See page 17.

### Credits

- To avoid possible loss of credit toward graduation requirements, an Eastern Michigan University student who wishes to take courses at another college or university should secure approval of the head of the department concerned or director of academic records and certification.
- Students regularly enrolled at other colleges or universities may be enrolled as guest matriculants.
- Students must complete all work on time. Incompletes are awarded only when the student's work has been of acceptable quality, but the required amount has not been completed because of illness, necessary absence or other satisfactory reasons. See "grades" on page 23.
- It is expected that students seeking certification or degrees will acquaint themselves with the University regulations which are available from the Office of Academic Records and Certification.
- Persons may audit a course without credit upon payment of regular fees, following the regular policy on page 23.

## LIBRARY SERVICES

The Eastern Michigan University Center of Educational Resources places its facilities at the disposal of all students taking classes through the Division of Continuing Education. While every effort is made to honor requests, the library cannot guarantee to furnish all books at a specified time. Students requesting books by mail should suggest alternates.

Request forms are furnished. Requests for materials should be addressed to the circulation librarian, Eastern Michigan University, Ypsilanti, Michigan; they should include their name, student number, and bibliographic information. Books requested by mail will be loaned for one month and may be renewed upon request (487-0226) for two weeks.

Those students borrowing materials from the library directly are subject to the same borrowing regulations as students in residence. They will be asked to present a current student identification card. Books borrowed directly are loaned for a two-week period with a two-week renewal privilege. Periodicals must be used in the library.

Fines will be assessed at the rate of \$.10 per book per day. (Fines are subject to revision following proper notification.) Books returned by mail are overdue three days after the date stamped in the book.

## INDEPENDENT STUDY THROUGH CORRESPONDENCE

Independent study through correspondence courses has been designed to meet the educational needs of undergraduate students. Upon completing enrollment in an independent study through correspondence course, such students receive a study guide that outlines, in detail, all course work assignments. The students submit the required assignments by mail. Each assignment is reviewed and evaluated by a member of the faculty who has been designated as the instructor for the course. When all assignments have been completed and evaluated, the students take a proctored final examination. Students may earn up to 15 semester hours of academic credit to be applied toward an undergraduate degree.

### General Procedures and Regulations

- Students make application for independent study through correspondence courses to Independent Study Through Correspondence, Continuing Education, 319 Goodison Hall, Eastern Michigan University, Ypsilanti, Michigan 48197.
- Course enrollment may be made at any time.
- Students must be officially admitted to Eastern Michigan University before enrolling for independent study through correspondence course work. Application blanks and details of the admission procedure may be obtained by writing to Office of Admissions, Eastern Michigan University, Ypsilanti, Michigan 48197.
- Students working toward a degree to be awarded by Eastern Michigan University are held to the same requirements concerning distribution of courses as those of students in residence.
- Students should plan for one or more meetings on campus with the assigned instructor.

## Course Requirements

1. Correspondence courses should be completed within one calendar year from the date of enrollment. In special cases and upon written request from the student, a limited extension of time may be granted by the head of independent study through correspondence.
2. Independent study through correspondence courses is designed so that each assignment is equivalent to a week's work in an on-campus course. Students are encouraged to submit assignments by mail one at a time.

## Credits

1. Courses which are completed satisfactorily by independent study through correspondence carry the same amount of credit as those pursued in residence. The mark earned is entered on the permanent record. No grade points are recorded.
2. Up to 15 semester hours of credit earned through independent study through correspondence may be applied toward an undergraduate degree.
3. Students enrolled on campus may enroll in an independent study through correspondence course if their total academic loads, so augmented, will not exceed the maximum allowed in a given semester or session. Exceptions must be approved by the director of the Academic Services Center.

## Fees

1. A fee of \$35.00 per credit hour will be charged, payable at time of enrollment.
2. Independent study through correspondence fees will be refunded only if requested within 60 days following enrollment, provided no lessons have been submitted to the instructor. In the event of a refund, a charge of \$5.00 will be made to cover office costs.
3. A prepaid fee may be transferred to some other courses if the transfer is made before the completion of an assignment. The transfer privilege ceases, however, at the end of six months after date of enrollment. A charge of \$5.00 will be made to cover office costs.
4. Postage for written papers sent in must always be fully prepaid by the student at first class rates. Postage should always be fully paid on all books being returned to Eastern Michigan University Circulation Librarian.
5. Credits will be withheld until all obligations are met and all delinquent fees and charges are paid.

## COURSES

The following courses are now available by independent study through correspondence. Other courses will be added to the lists from time to time. Inquiry is invited concerning courses that are not listed. See the appropriate departments for course descriptions.

LIT	210 Shakespeare	Three sem hours
ENG	302 Modern English Syntax	Three sem hours
LIT	305 Shakespeare: The Major Comedies and Histories	Three sem hours
ENG	325 Expository Writing	Three sem hours
GEO	108 Earth Science	Four sem hours
GEO	110 World Regions	Three sem hours
PSY	101 General Psychology	Three sem hours
ILSOC	105 Introductory Sociology	Three sem hours
PED	320 Health Education in the Elementary Grades	Two sem hours

## CREDIT-FREE PROGRAMS

Through its credit-free programs, the Division of Continuing Education at Eastern Michigan University offers courses, conferences and workshops of interest and use to persons in southeastern Michigan. These short-term, intensive educational programs, which do not carry university credit, are designed specifically for those who wish to develop professional skills, enhance career development, or stimulate new interest or personal development.

An ever-increasing variety of non-credit courses and workshops are presented by the Division of Continuing Education throughout the year. While some programs have a broad base of appeal and wide applicability, most are designed to fulfill the specific continuing educational needs of professional groups or target audiences. Typical audiences served by credit-free programs at Eastern Michigan University include:

- human service professionals
- nurses and other health professionals
- educators
- school psychologists
- musicians and music teachers
- community educators
- supervisors, managers, and executives in business and industry
- secretaries and administrative assistants.

## In-House Programs

Credit-free professional development or training programs can be designed or modified to meet the needs of particular groups. Schools, industries or organizations which would like to have specific courses, conferences or training programs provided through the Division of Continuing Education may contact the Director of Credit-Free Programs.

## CONTINUING EDUCATION UNITS

The Division of Continuing Education at Eastern Michigan University offers Continuing Education Units (CEU's) for participation in selected credit-free programs. The CEU is a nationally-adopted measure of time spent in non-credit continuing education programs with one CEU equivalent to ten contact hours of instruction. A permanent cumulative record of CEU participation is kept and transcripts are available for persons awarded CEU's at Eastern Michigan University. Persons in many professional fields are required to accumulate CEU's as evidence of continuing professional training and to maintain certification. Others find the CEU to be a convenient, permanent measure of their professional development and growth.

For more information on the credit-free courses, conferences, workshops and special programs offered by the Division of Continuing Education, contact the Director of Credit-Free Programs.

## CONTRACT COURSES

The Division of Continuing Education also offers courses on a contractual basis. These credit or credit-free courses are arranged between a school system, a business or industry, health care facilities or other such institutions, and Eastern Michigan University. They are designed to investigate problems unique to the particular group or organization and they are usually held at the school or other contracting agency.

## CONSULTATION SERVICES

Eastern Michigan University is ready to assist any school in Michigan in solving its problems. The Division of Continuing Education will aid in making school surveys, will advise on school organizations, courses of study, methods of instruction, and will evaluate current programs. Consultants and trained personnel are furnished ordinarily on a fee basis to the public school or other agency requesting them.

## OFFICE OF INTERNATIONAL STUDIES

Director: Sandra E. Wright

Students at Eastern Michigan University have opportunities to study abroad for a semester or year earning credit toward graduation. Such opportunities occur principally at the junior year. The Office of International Studies maintains information relative to such opportunities and counsels with students on fitting these experiences into their programs.

In addition to the programs listed below, many other opportunities to study abroad sponsored by other institutions of higher education are available to Eastern Michigan University students. It is important for the student to make plans early for study abroad.

### 1. STUDENT-FACULTY INTERNATIONAL EXCHANGE PROGRAM TRIMESTER IN ENGLAND FOR JUNIORS ON TEACHING CURRICULA.

A limited number of Eastern Michigan University juniors exchange places during the fall with a comparable number of second-year students at the University of Warwick in England. The EMU students are accompanied by an Eastern Michigan University faculty member.

Students pay fees for room, board and tuition directly to Eastern Michigan University. They receive up to 16 semester hours of credit at EMU during the term abroad.

Students are expected to provide their own transportation costs. This is the only additional required expense of exchange students beyond that which they would normally spend in residence in Ypsilanti. However, if students wish to travel in Great Britain or on the Continent during holidays, they may anticipate additional expenses.

### 2. SPRING/SUMMER PROGRAMS ABROAD

During the spring and summer terms, several departments of Eastern Michigan University offer courses or programs abroad which are open to graduate and/or undergraduate students. See the description under "Continuing Education."

The study abroad program offerings vary from year to year; please contact the Office of International Studies for current information on tours abroad. Study tours which have been offered in the past include:

Art History - Florence, Italy

Vocal and Choral Music - England

Art Workshop in Arizona

European History Tour - Munich, Germany

European Cultural History Programs - Austria, France, Italy

Geology Field Study

Marketing in England

Language Study in Cuernavaca - Mexico

## GRADUATE SCHOOL

Dean: Gary D. Keller

This section of the Undergraduate Catalog provides some general information about the Graduate School. However, students who are interested in graduate education at Eastern Michigan University should contact the Graduate School Office, Room 116 Pierce, 487-3400, to obtain additional information.

### ENROLLMENT IN GRADUATE COURSES BY UNDERGRADUATES

An advanced undergraduate student at Eastern Michigan University may register for graduate courses if recommended by the adviser and approved by the dean of the Graduate School. Credit so earned may be used for only one of two purposes:

to meet the requirements of the baccalaureate degree, thus receive undergraduate credit;

to apply towards a master's degree, thus receive graduate credit.

A student may not use graduate credit for both purposes.

To be eligible for either, a student must have undergraduate admission at Eastern, have acquired 75 hours or more of undergraduate credit and have a cumulative grade point average of 2.50 or better in all coursework completed at the University. *Senior students who hold guest admission in the undergraduate school are not eligible to enroll in graduate courses.*

Permission to enroll in graduate courses as an advanced undergraduate should not prolong the completion of undergraduate degree requirements.

The maximum number of graduate hours that can be elected during the senior year is fifteen. Election of graduate courses is limited to the 500 series. Advanced undergraduates are not permitted to enroll in 600 or 700 series courses.

There are several restrictions on the use of credit earned in the graduate courses by advanced undergraduates:

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 advanced undergraduate must apply and meet all requirements for admission to the Graduate School and degree program.

Graduate courses taken for either undergraduate or graduate credit and taken prior to receipt of a Provisional Teaching Certificate cannot be used to satisfy any requirements of the Permanent/Continuing Certificate.





## ADMISSION REQUIREMENTS AND PROCEDURES

Anyone planning to enroll in graduate level courses must be admitted to the Graduate School through one of the following admission categories: Degree or Special Student.

### 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 or 2.75 in the last half of the undergraduate program.

Applicants who do not meet this criteria may be considered for admission by a department after completing ten (10) hours of selected graduate work at EMU and achieving a grade point average of 3.3 (B+). It is important to note that the requirements listed are Graduate School minimums, and many departments have established requirements above those listed. Specific Graduate School and departmental admission criteria can be obtained from the Graduate School catalog. Applicants who do not possess a 2.50 and wish to pursue degree admission through this alternative should contact the Graduate School Office. Application forms will be provided for this purpose as well as a listing of those departments willing to consider admission through this alternate procedure.

### 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 higher standards than this minimum.

### Special Student

Special Students may enroll under this status for any of the semesters or sessions (fall, winter, spring or summer) and there is no limit to the number of hours a Special Student may earn. However, students will be subject to course prerequisites. Also, a student can not earn a degree with Special Student status. Students can transfer from Special Student status to degree status if they meet departmental and Graduate School requirements. Policy states that a student must complete a minimum of ten semester hours after admission to the degree program. Special Students can earn a graduate certificate in such programs as Historic Preservation Planning and Social Work. However, for the purpose of teacher certification and for professional licensing, the submission of official transcripts is necessary.

Credits earned do not automatically apply on 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.

### Teacher Certification

Students interested in taking graduate courses for the purpose of teacher certification may do so as Special Students.

### Guest Students

Students who wish to earn graduate credit at Eastern for transfer to the parent institution may do so as Special Students.

### Second Bachelor's

Students who wish to earn a second bachelor's degree may do so as a Special Student.

## PROCEDURES FOR GRADUATE ADMISSION

### Degree Status

Complete the application form.

Submit official transcripts of all undergraduate and graduate credit at each institution attended.

Where necessary, have official scores from national examinations submitted. (Departments requiring test scores state this in the Graduate Catalog.)

All application materials should be received by the Graduate School 30 days prior to the beginning of the semester or session in which enrollment is anticipated. All documents and supporting data required for admittance become the property of the Graduate School and will not be returned.

Applicants are not officially admitted to matriculation until they have been notified of acceptance by the Dean of the Graduate School in writing.

### Special Student Status

Provided that they present acceptable proof of a baccalaureate degree (such as a student copy of transcripts, a diploma, teaching certificate or membership in a professional organization where the baccalaureate is required), students may enroll for as many enrollment periods as they wish with Special Student status.

## GRADUATE PROGRAMS

The University offers graduate work leading to several types of degrees, i.e. Master of Arts, Master of Science, Master of Fine Arts, Master of Business Administration, Master of Public Administration, Master of Liberal Studies and Specialist in Arts. Programs leading to these degrees are administered by the departments in the respective colleges. Departments which offer more than one option within their degree programs are identified.

### Degree Programs and Areas of Concentration

#### MASTER'S DEGREE

#### COLLEGE OF ARTS AND SCIENCES

Applied Economics

Art

Education

Studio

Biology

General Biology

Aquatic Biology

Community College Teaching

Physiology

Chemistry

Communication

Oral Interpretation

Public Address

Criminology & Criminal Justice

Economic Development, Trade, Planning

Economics

English

Literature

English Language & Composition

Children's Literature

Fine Arts (MFA)

General Science

Geography

Environmental Studies

Land Use Analysis

Man & His Works

## Historic Preservation

- General
- Planning
- Administration

## History

- Language & International Trade

## Liberal Studies

- Social Science & American Culture

## Mathematics

## Music

- Music Education
- Music Literature
- Music Theory-Literature
- Piano Pedagogy
- Performance
- Choral Music

## Physics

- Physics Education

## Psychology

- General
- Clinical

## Public Administration

## Social Science

## Sociology

- Spanish (Biling.-Bicult. Education)

## Speech &amp; Dramatic Arts

- Communication - Public Address

- Dramatic Arts

- Drama for the Young

- TESOL (Teaching English as a Second Language)

## Theater Arts

- Arts Management

- Drama for the Young

## COLLEGE OF BUSINESS

## Accounting

## Business Administration

- Accounting

- Finance

- Computer-Based Information Systems

- Management

- Marketing

- General Business

## Computer-Based Information Systems

- Computer Systems

- Management Science

## Organizational Behavior &amp;

- Development

## COLLEGE OF EDUCATION

## Early Childhood Education

## Educational Leadership

## Educational Psychology

- Development & Personality

- Research & Technology

## Elementary Education

- Children with Special Needs

- General Elementary

- Language Arts

- Open Education

- Educational Media

## Guidance &amp; Counseling

- School Counselor Endorsement

- College & Community Personnel

## K-12 Curriculum

## Middle School Education

## Physical Education

## Reading

## Secondary School Teaching

## Social Foundations

## Special Education

- Mentally Impaired

- Orthopedically Impaired

- Hearing Impaired

- Emotionally Impaired

- Visually Impaired

- Speech & Language Impaired

- Learning Impaired

## COLLEGE OF HEALTH AND HUMAN SERVICES

## Home Economics

- General Home Economics

- Clothing, Textiles & Related Arts

- Family & Child Development

- Foods & Nutrition

- Consumer Affairs

- Housing, Interiors & Equipment

## COLLEGE OF TECHNOLOGY

## Business Education

## Industrial Education

- Industrial Arts

- Industrial - Vocational

## Industrial Technology

- Computer Aided Design

- Construction

- Manufacturing

## Liberal Studies

- Technology

## Individualized Studies

## SPECIALIST'S DEGREE

## Educational Leadership

## Guidance &amp; Counseling

## School Psychology

## Special Education

- Administration & Supervision

- Curriculum Development

## Graduate Certificate Programs

## Historic Preservation

## Social Work



## Financial Assistance

The Graduate School of Eastern Michigan University maintains a commitment not only to offer quality academic programs and support services, but also to aid students in their search for financial assistance to help finance their graduate education. Even though graduate education at Eastern, comparatively speaking, is moderately priced, when all of the expenses are calculated, financial aid may be required. The following describes the financial and programs available to graduate students at Eastern Michigan University.

### DISTINGUISHED SCHOLARSHIPS

#### Barton Scholarship Award

It is a high honor to receive the Barton Scholarship Award and be recognized as an EMU Barton Scholar. Recent graduates who have earned a baccalaureate degree from Eastern Michigan University and have maintained at least a 3.0 undergraduate grade point average are eligible to apply for this competitive prestigious award. Recipients of the Barton Scholarship must pursue graduate study at Eastern Michigan University or the University of Michigan and continually strive for academic excellence.

The Barton Scholarship Award is a one-time, non-restrictive, cash award of five hundred dollars (\$500). Applications will be considered by the Graduate Dean bi-annually in January and July for the fall and winter semesters, respectively. After carefully reviewing the completed applications, the Graduate Dean will submit his recommendation naming the proposed recipients of the Barton Scholarship to the Scholarship Committee for its final determination. Of the total scholarships to be awarded each year, approximately 70% will be awarded during the fall semester and 30% during the winter semester. The total number of scholarships to be awarded each year (fall and winter semesters) will be determined based on the current endowed fund balance and will be announced during the month of September.

For more information about the Barton Scholarship Award please contact the Assistant Dean at the EMU Graduate School (313) 487-1307.

### STUDENT EMPLOYMENT PROGRAMS

#### Graduate Assistantship Program

The Graduate Assistantship Program is administered by the Graduate School of Eastern Michigan University. This program provides financial support and experiential training to graduate students who are offered admission to an EMU degree program and who are selected to become a graduate assistant in an academic or administrative department on campus. Appointments to graduate assistantships are made for a two-year period and are contingent upon the recommendation of an academic department and the approval of the Graduate School, maintaining, during the actual appointment to the assistantship, an acceptable academic grade point average of at least 3.0 on a 4.0 grading scale, and successful participation in departmental assignments.

The job responsibilities of Graduate Assistants (GA's) vary according to the needs of individual departments. Some departments utilize the GA's in classroom related activities while others employ the GA's skills in research projects, recruitment activities, and/or administrative functions. The preferred time commitment from GA's is 20 hours per week. However, part-time positions (10-15 hours per week) may also become available in various departments. Graduate students who are interested in the Graduate Assistantship Programs should first contact the department head of their academic department. Should GA position vacancies not exist in the student's academic department, the applicant is advised to submit his/her

curriculum vitae to the Assistant Dean's Office at 116 Pierce Hall which will then be included in the GA Resource File. The GA Resource File is used by EMU administrative units and academic departments who seek to fill positions with Graduate Assistants. The submission of your credentials to the GA Resource File does not however guarantee a placement.

**ASSISTANTSHIPS** are available through academic departments and are awarded on the basis of the applicant's qualifications. Each appointment requires considerable research time and precludes other employment. The academic year stipend ranges from \$3,150-\$3,350. In addition, the University pays full tuition for 16 credit hours for each fiscal year of the assistantship, as well as registration and health service fees. The total package approximates \$4,800, depending on 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.

For more information about the Graduate Assistantship Program please request the publication "Graduate Assistantships at Eastern Michigan University" by contacting the Assistant Dean at the Graduate School of Eastern Michigan University (487-1307).

#### Minority Graduate Assistantship Program

Eastern Michigan University has continually encouraged the application and enrollment of promising minority graduate students. We have long recognized the desperate need for well-trained minority group scholars and have repeatedly acted upon this need by counseling students into academic disciplines which are normally not pursued by minorities and by providing financial assistance programs which help students to finance their graduate education. The Minority Graduate Assistantship Program is also administered by the Graduate School and follows the basic design and procedural guidelines of the previously cited Graduate Assistantship Program. However, the minority Graduate Assistantship Program is unique in that one of its main purposes is to attract highly qualified minority students who are interested in academic disciplines which have traditionally not been accessible to minorities.

For more information about the Minority Graduate Assistantship Program please contact the Assistant Dean at the EMU Graduate School (313) 487-1307.

#### College Work-Study

College Work-Study (CWS) is an employment program which allows students demonstrating financial need to work up to 20 hours per week on-campus or at participating off-campus agencies. Student wages are paid 80% from federal funds and 20% from University funds. Hourly pay generally ranges from \$3.35 to \$4.55 for graduate students.

#### Student Employment

Student Employment listings for on and off-campus employment are maintained by the Eastern Michigan University Student Employment Office, Career Services Center. Many non-College Work-Study jobs are also available. Students do not have to demonstrate financial need to work at non-College Work-Study jobs.

#### EDUCATIONAL LOANS

**NATIONAL DIRECT STUDENT LOANS (NDSL)** are long-term educational loans funded by 90% federal and 10% University contributions made to students demonstrating financial need. Graduate students may borrow up to \$2500 per academic year. Repayment of the loan at 4% simple annual interest begins 9 months after the student leaves school. Loan repayment terms (minimum of \$90 every three months beginning one year after

the student leaves school) must be arranged with the Student Loan Accounting Office before the student leaves Eastern Michigan University.

**MICHIGAN GUARANTEED STUDENT LOANS (GSL)** up to \$5,000 per year at 7% interest are available for graduate students from banks, savings and loan associations, and credit unions for full-time and half-time students. Interest payments are made by the federal government while the student is enrolled in graduate school. Applications are available from participating lenders. Normal application processing time is 6 to 8 weeks. Other states have similar loan programs. Further information is available from the Office of Financial Aid, 212 Pierce Hall.

Most Canadian students are able to apply for a similar educational loan through the Canadian Government. The address is:

Ministry of Colleges and Universities  
Attention: Student Awards Officer  
8th Floor, Mowat Block, Queen's Park  
Toronto, Ontario  
CANADA M7 A 2B4

**MICHIGAN STATE DIRECT LOANS (SDL)** are available for Michigan residents who cannot get Guaranteed Loans from commercial lenders and obtain a letter of denial. Graduate students can borrow up to \$5,000 or one-half of costs (whichever is less). Students must have an adjusted family income under \$25,000 in order to receive a State Direct Loan. Applications and further information are available from the Office of Financial Aid. Normal application processing is 10-12 weeks.

## GRADUATE CATALOG

Graduate School Catalogs are available without charge and may be obtained in Room 116, Pierce Hall, or by writing to the Graduate School Office. Students are responsible for the information and affected by the policies and regulations contained in the catalog.

# BUILDINGS AND GROUNDS

## THE UNIVERSITY CAMPUSES

Eastern Michigan University is located on the northwestern side of Ypsilanti on high ground overlooking the city and the Huron River valley. The main campus and nearby west campus contain 113 buildings on approximately 460 acres. The University's Kresge Environmental Education Center at Fish Lake near Lapeer encompasses 241 acres adjacent to a large state game preserve.

## CENTER OF EDUCATIONAL RESOURCES

The University Library, which opened at the beginning of the spring semester, 1967, provides more than five times the floor space and double the book capacity of the old Mark Jefferson Library. The seating capacity is 1,800, and there are more than 800,000 items available for use, including books, bound periodicals, documents and microforms. Most materials are on open shelves and are readily available for home or library use when not on reserve. The Audiovisual Center complements the library collection with non-book materials and a listening center.

## THE UNIVERSITY BUILDINGS AND PLANT

### FREDERICK M. ALEXANDER MUSIC BUILDING

Completed in 1980, this new facility houses the Department of Music. 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 a handsome building specifically for music instruction.

### R. CLYDE FORD HALL

The former Mark Jefferson Library, renamed R. Clyde Ford Hall, has been remodeled to provide office and classroom space for the Television Center and Foreign Languages and Bilingual Studies Department. The building originally was opened in 1929 and was remodeled in 1967.

### BERTHA M. GOODISON HALL

This building at present houses the offices of Cooperative Education, Dean of Students, Student Government, Student Publications, Minority Affairs, Campus Life, Veteran's Affairs, Women's Commission, Upward Bound, International Projects, International Studies, Contemporary Issues, Humanities Program, Faculty Council, Continuing Education, Center for Afro-American Studies, and Student Organization offices.

### OLD ALEXANDER MUSIC HALL

Immediately adjacent to Pease Auditorium, this building is utilized by the Art Department primarily to house activities in Graphic Design and Art Education.

### MARY GODDARD HALL

This building, erected in 1955, is primarily a residence hall but, in addition, houses the University Computing Center, and classroom space for Industrial Education.

### RICHARD G. BOONE BUILDING

Built in 1914 as an administration building, the Boone Building now houses the College of Education offices and classrooms.

### J. M. HOVER LABORATORY

The building, completed in 1941, houses laboratories of the Department of Biology, as well as a greenhouse and plant laboratory, and the Bio-career Center.

### WILBUR P. BOWEN FIELD HOUSE

The field house was completed in December 1955, and was named for the founder and long time head of the Department of Physical Education. The field house is the home of the Huron Basketball teams and additionally accommodates an eight lap to the mile track, locker facilities and expansive instructional space in the hard surfaced infield.

### MARK JEFFERSON HALL

This building, completed in the fall of 1970, houses the Departments of Chemistry, Biology and Psychology. The new building has completely equipped modern laboratories for these departments and greatly enhances their preparing of students in these fields of study.

### WALTER O. BRIGGS BUILDING

Originally constructed as a first unit of a field house, the Briggs building was first converted to classroom use and has recently been converted to house the Office of Registration and Student Accounting and Cashier's Office for the payment of tuition and room and board.

### JULIA ANNE KING HALL

This building houses the Dean of the College of Health and Human Services and a number of the Departments and Programs within this College including the Department of Nursing Education, the Department of Occupational Therapy, the Department of Social Work, the Health Administration Program, the Medical Technology Program and the Interdisciplinary Gerontology minor. The building also houses the Institute for the Study of Children and Families, the National Center of Teaching and Learning, the director of Affirmative Action, and the University Radio Station (WEMU).

### CAREER SERVICES CENTER

Formerly the D'Ooge residence, this facility, located on the corner of Forest and Lowell, provides offices, records, and interview rooms for student part-time and summer employment and career placement for graduating seniors and alumni.

## CHARLES McKENNY HALL

Charles McKenny Hall, named after a former president of the University, is the student union and social center of the University.

The facility was completely remodeled in 1964-65 and a large addition added, doubling its original size. It now houses cafeteria and dining services, snack bar, University bookstore, bowling alley, billiard room, offices for student organizations, lounges, meeting rooms, a large ballroom, and the offices of Development and of Alumni Relations.

## PARKING STRUCTURE

A structure to house 800 cars has been built west of Bowen Field House. The structure has direct access to Washtenaw off Oakwood Avenue. This also houses the University Safety Department.

## FREDERIC H. PEASE AUDITORIUM

This building, completed in 1914 and named for Frederic H. Pease, long time head of the Conservatory of Music, houses part of the Department of Music activities. The auditorium seats 1,700 and is the center for many University and civic activities. In the auditorium is the \$100,000 Frederick Alexander Memorial Organ.

## JOHN D. PIERCE HALL

Completed in 1948, this building replaced the original building of the University, which for a century honored the name of John D. Pierce, first superintendent of public instruction in the State of Michigan. The main administrative offices of the University are in this building.

## PRAY-HARROLD CLASSROOM BUILDING

The Pray-Harrold Classroom Building houses the Departments of English Language and Literature, History and Philosophy, Mathematics and the College of Business. Located north of the University Library, the building was completed in June, 1969.

## DANIEL L. QUIRK JR. DRAMATIC ARTS BUILDING

Opened in 1959, this modern drama facility contains an instructional theatre seating 381, a flexible laboratory theatre, scene and costume shops, radio facilities, an outdoor amphitheater, and classrooms and offices housing drama and speech activities of the Department of Communication and Theater Arts.

A classroom and office wing was added in the spring of 1966 to accommodate the increased needs in speech, drama, radio and TV broadcasting, and film.

## HORACE H. RACKHAM SCHOOL OF SPECIAL EDUCATION

This building houses both a school for impaired children and the Department of Special Education. It contains a new speech and hearing clinic, a diagnostic prescriptive clinic for learning-disabled children and their families, a pool and other facilities for physical therapy. It was constructed in 1938.

## ROOSEVELT BUILDING

The former Roosevelt Laboratory School has been remodeled to house the Departments of Home Economics, Military Science and Health Administration.

## SCULPTURE STUDIO

Located on the north campus is the sculpture studio for the Art Department.

## WILLIAM H. SHERZER HALL

This building, erected in 1903, houses industrial education, art and dance classrooms.

## J. M. B. SILL BUILDING

J.M.B. Sill Building houses classrooms and offices for the College of Technology and the Department of Fine Arts, art galleries and large lecture halls used for classes in speech, social work, political science and special education.

## GLENADINE C. SNOW HEALTH CENTER

This modern health service facility includes a pharmacy, medical laboratory, X-ray department, physicians' clinical offices, nurses' consulting rooms, and examination and treatment areas. In addition, this building houses the offices of Information Services, Research and Development, the University Child Care Center and offices for the mental health counselors.

## MARY ANN STARKWEATHER HALL

A gift from Mrs. Mary Ann Starkweather, this hall was erected in 1897 and was remodeled and modernized in 1961. Starkweather Hall is the home of the Admissions - On Campus Program Center which provides services for the University community and campus visitors. The services of the Admissions - On Campus Program Center include the Information Center, Campus Tours, EMU Candidats, New Student Orientation Conferences, and a host of special activities designed for prospective students and their families.

## EDWIN A. STRONG PHYSICAL SCIENCE BUILDING

This building, opened in the fall of 1957, houses the Department of Physics and Astronomy and Geography and Geology. Now in operation are the laboratory and lecture hall units. The building is named after Edwin A. Strong, head of the Physical Science Department between 1885-1916.

## JOSEPH E. WARNER PHYSICAL EDUCATION BUILDING

This facility, completed in 1964 and immediately adjacent to Bowen Field House, provides an athletic and physical education plant. Housed in this building are gymnasiums, classrooms, offices, special-purpose rooms, a swimming pool and the Human Performance Laboratory.

## ADONIJAH S. WELCH HALL

The first section of Welch Hall was erected in 1896. It is named for Adonijah S. Welch, first head of the University, and was originally used as the University laboratory school. It now houses University business offices.

In the University Business Office area are the departments of Accounting, Budget, Fiscal Analysis, Fringe Benefits, Payroll, Human Resources (Personnel, Compensation and Employee Relations) and Purchasing.

## STUDENT HOUSING

The University residence halls and student apartments are operated on a self-liquidating plan, i.e. construction is financed from revenue bonds, and these plus the operational costs are paid from the rental revenue.

### Residence Halls

The **Jones-Goddard Residence Halls** represent the more traditional campus residential facilities. Attractive wood paneled lounges and fireplaces are located in both units. These facilities were constructed to surround a central courtyard area. Approximately 400 students can be accommodated by these halls.

**Downing-Buell-Wise-Best** comprise a four-unit complex of separate buildings adjoining a central dining commons. These halls, containing space for approximately 1,200 students and located in the geographical heart of the campus, are also rich with tradition.

**Phelps-Sellers-Walton-Putnam** represent another four-unit complex. These buildings are physically attached and share a common dining area. This complex was built to accommodate 1,200 students.

**Pittman-Hill**, two contemporary eleven story high-rise towers, are the most recently built of the Campus Residential units. Each of these halls has ample social and study space on each floor, and each room offers to its occupant a panoramic view of the campus and the surrounding area.

### Student Family Housing

The **Pine Grove Terrace** is located on the northwest corner of the main campus, the closest family housing unit to the campus proper. There are 140 one-bedroom apartments and 29 two-bedroom apartments in these two-story masonry units. Each building contains laundry and storage facilities, provides exterior balconies and private furnaces. Constructed in the late 1950s, these units remain very popular with student families and rent furnished.

**Cornell Courts** apartments, located on the west side of the north campus, offer 69 one-bedroom and 66 two-bedroom apartments. These units, completed in the mid-1960s, are two-story masonry construction with exterior balconies and rent furnished. Laundry facilities are contained within each building unit. The courtyard areas of this complex offer particular appeal to the student family.

The **Westview** apartments, completed in the late 1960s, are located about one mile west of the main campus, near the intercollegiate athletic facilities. These apartments are of townhouse-style giving the occupant both a front and back yard. Bedrooms are generally located on the second story, above the living area. A total of 73 one-bedroom and 72 two-bedroom apartments are offered in this complex and rent furnished.

In all three of these student family housing areas, a limited number of unfurnished units are being made available for those desiring a completely unfurnished unit. Early contact with the Housing Office is necessary to determine availability of these unfurnished units.

## SINGLE-STUDENT APARTMENTS

Heralded as a unique and innovative program, the **Brown-Munson** apartments were remodeled from a residence hall facility to 207 apartments in the early 1970s. The apartments, open to single students, are predominantly designed for two tenants, although some single and multiple occupancy is available. All apartments are basically furnished, carpeted, and air-conditioned. All utilities, with the exception of telephone, are included in the monthly rent.

## FIELDS AND OUTDOOR FACILITIES

### KRESGE ENVIRONMENTAL EDUCATION CENTER AT FISH LAKE

This property, purchased in 1965, is being developed primarily as a center for experimentation in and dissemination of environmental education programs. Another major role is as a site for resident field study in various disciplines of biology and other environmentally focused subjects.

The Center is located in Mayfield Township of Lapeer County and has a wide variety of topography and habitat. A natural lake, a man-made impoundment and a bog offer diversity for aquatic studies.

The site is 241 acres in area, and is surrounded on three sides by 4,000 acres of the Lapeer State Game Area. Present facilities include a dormitory which houses 64, a dining commons which can feed 200, a remodeled one-room school house and four modular units which house the Center office and provide staff housing and an additional lab-classroom.

### CLARENCE M. LOESSELL FIELD LABORATORY

Located west of the campus, this tract of about 21 acres was dedicated in 1958 to the memory of Clarence M. Loessel, longtime head of the Natural Science Department (present Biology Department). It includes a considerable variety of habitat and wildlife and is used in the teaching and research program of the department.

### MAIN CAMPUS

On the main campus there are 17 tennis courts, eight of which are lighted for night play, softball playing fields for Women's softball and several general recreation open fields. Recently constructed is the equivalent of four softball diamonds or two football fields - all under light for nighttime use. They are used by the physical education classes, by the intramural program and for general recreational purposes. The main campus consists of 217 acres.

### WEST CAMPUS

An area of 142 acres was purchased in 1965 and an additional 40 acres purchased in 1967 to allow expansion of the academic campus into the site of athletic areas on the main campus. The new site contains a baseball stadium, football stadium, all weather running track, six intramural fields, two practice football fields, and room for future expansion and growth of similar facilities.

## RYNEARSON STADIUM

This facility was ready for the 1969 fall football season and contains 12,500 permanent seats on the west side of the field allowing for temporary bleachers which expand the seating on the east side of the field to 22,000. Also included are complete press box and locker room facilities.

## BRIGGS FIELD

This facility is a baseball field with a grandstand seating 2,500 people under cover. First used in the spring of 1968, it is among the finest baseball facilities in intercollegiate competition.

## CLOSED-CIRCUIT TELEVISION

Many University buildings are linked by coaxial cable in a closed-circuit television system, which has been in operation since 1960. Closed-circuit TV ("KITS" - Campus Instructional Television System) is used for direct instruction, observation and demonstration. Television production studios are located in Ford Hall. The University also provides "KATS," Campus Antenna Television System, which feeds a university cable linkage to the apartments in Brown-Munson, Pine Grove and Cornell Courts; the lounges in other residence halls; McKenny Union; and the Huron Hideaway. This system provides commercial channels, public broadcasting channels, FM radio and one channel reserved for broadcasting the on-campus laboratory productions of television classes and other programs specifically intended for the University community.

## THE ALUMNI ASSOCIATION

The Alumni Association was incorporated in 1925 to serve as a bond between the University and alumni around the world.

The Association is governed by a twenty-four member Board of Directors, whose alumni members are elected in the spring of each year by a vote of all eligible Association members. The President of the University is an ex-officio member and the director of Alumni Relations serves as secretary.

Through the Office for Alumni Relations, the Association helps to plan programs of interest for alumni and also serves as the vehicle for communicating to the University faculty and administration the concerns of Eastern's alumni as they relate to the development of the University.

Over the years, the Association members have served the University in many ways. Most notable are the financial contributions made. The Memorial Chimes and Pierce Hall clocks given in former years and, in more recent years, gifts to the University Library, gifts to various established funds and scholarships, and additional scholarships and aid to student organizations have exemplified the willingness of alumni to invest in the University.

Charles McKenny Union, completed in 1931, was built through the efforts of alumni and the University, and stands as a visible symbol to all that the Association is proud to serve Eastern.

## OFFICE FOR ALUMNI RELATIONS

Director: Ralph F. Gilden

The Office for Alumni Relations serves nearly 65,000 alumni throughout the world by providing programs which help foster a continuing interest in the progress of the University. The office also provides the means by which personal relationships established during student days can be maintained and renewed, as well as promoting interaction between current students and alumni.

Some of the special activities include Homecoming, club meetings, travel, golf outings, concerts, continuing education programs, as well as special reunions of various constituency groups of alumni. Staff support is given to the programs established for the Century Club, Huron Club, E Club, and the annual Football Bust, as well as to other departments and organizations on campus.

Alumni receive four issues of Eastern each year, which keep them informed of news of alumni, news of campus, and other items of interest.

The Office for Alumni Relations is located in room 202, McKenny Hall (487-0250). Alumni and students are invited to visit the office at any time.

## OFFICE OF DEVELOPMENT

Director: Greg A. Koroch

On September 1, 1975, the Office of Development was established to create a new awareness of the University's ever-increasing need for private support and to organize a University-wide development program.

Primary functions of the Office of Development include the identification, cultivation, and solicitation of alumni, friends, parents, corporations, foundations, and civic and labor organizations; the development of direct-mail, planned giving, and other programs to meet specific annual, capital and endowment objectives; the receiving, 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.

The Office of Development is located in room 212, McKenny Hall (487-0252).

## INFORMATION SERVICES AND PUBLICATIONS

Director: Kathleen D. Tinney

The Office of Information Services consists of the University News Bureau, the Sports Information Office, the University Photographer and University Publications.

The News Bureau is the focal point for all contact with the news media and coordinates administrative efforts at internal communication on campus. Events and activities of the University are publicized through this office and inquiries from reporters generally are directed to the News Bureau. The news editor also is responsible for Faculty-Staff News, a weekly bulletin for faculty and staff.

The Sports Information Office is responsible for the dissemination of all news and printed materials relating to athletic activities and serves as the central source of statistical information pertaining to athletics. Sports information also serves as the official University host for all media visitors to University athletic events.

The University photographer is responsible for providing black and white and color photographs and slides for news and sports releases, slide shows, displays and University publications.



University Publications is responsible for producing all printed materials for the University. Editorial, design, typesetting, copying and printing services are available through the department.

All of the staff in the Office of Information Services offer professional assistance and counsel to individuals and organizations in the areas of public relations and media relations.

## OFFICE OF RESEARCH DEVELOPMENT (ORD)

Director: M. Antoinette Schiesler

The Office of Research Development is organized to stimulate, initiate and develop externally funded research and development activities in the University. The office works cooperatively with faculty, administration and students who are interested in obtaining funds for independent research, demonstration programs, experimental projects and other efforts directed at expanding the scope and quality of the University.

The office attempts to identify funding sources through liaison with governmental and private agencies, through the screening of program announcements and requests for proposals and through personal contacts. Information on funding opportunities is made available directly to EMU personnel where their specific interests and capabilities are known and through Faculty-Staff News. The office maintains information files on private, state and federal funding programs and keeps up to date on changing priorities or funding levels of potential sponsors.

It provides a number of services to proposal writers, such as aid in editing, typing and preparing proposals for submission. It assists the applicant to obtain all necessary University approvals and formally submits the complete application to the funding agency.

## OFFICE OF INTERNATIONAL PROJECTS

Acting Director: Jean S. Bidwell

The Office of International Projects is responsible for the development, coordination and implementation of international projects overseas. The office also is responsible for the management, budgeting and monitoring of project contracts and providing the necessary campus support for the field activities. The Office of International Projects is currently administering two major activities under contract with the United States Agency for International Development: The Swaziland Primary Curriculum Development Project in the Kingdom of Swaziland, Southern Africa, and the Yemen Basic Education Development Project in the Yemen Arab Republic.

Eastern Michigan University's involvement in international projects has provided a new dimension of recognition both nationally and abroad. This activity provides unique opportunities for the faculty to grow professionally, and to expand its expertise through direct involvement in the projects abroad, or indirectly through related activities on the campus. University students also benefit from this activity through the opportunity to work and study with students from many parts of the world. Future program development should provide for both graduate and undergraduate study related to development issues both on campus and in the countries where the University is engaged in assistance programs.

## THE INSTITUTE FOR THE STUDY OF CHILDREN AND FAMILIES

Director: Patricia Ryan

Associate Directors: Angelo Angelocci, Kim Hoa Granville,  
and Bruce L. Warren

The Institute for the Study of Children and Families was established by the Board of Regents of Eastern Michigan University for the purpose of providing focus and support to the study of children and families.

Within the focus of the Institute are research, demonstration projects, non-credit educational activities and consultations that are concerned with the determinants and/or consequences of childhood or family life. The Institute promotes and encourages the interdisciplinary study of children and families. This reflects the Institute philosophy that advancement of knowledge about children and families takes place only by the cooperative interaction and exchange of ideas by faculty and staff from throughout the University.

In addition to encouraging interdisciplinary involvement, various opportunities exist for undergraduate and graduate students who have interest in research or demonstration projects relating to children and families. This cooperative interaction extends beyond the University to other organizations, agencies and institutions.

Examples of Institute-sponsored programs include the Foster Parent Education Program and the Parenting Education Program. Cooperative efforts are also exemplified by workshops sponsored with other University Departments dealing with cultural diversity and home/school interaction. For further information phone 487-0372 or come to the office, 720 Pray-Harrold.

## INSTITUTE FOR COMMUNITY AND REGIONAL DEVELOPMENT

Director: Eugene Jaworski

The Institute for Community and Regional Development (ICARD) provides research and educational services to communities, governmental units, non-profit agencies and private interests which seek assistance from Eastern Michigan University. ICARD focuses on land use planning, economic development, public relations, organizational audits, and other community issues in southeastern Michigan. The Institute serves as an interdisciplinary research arm and extension service for several academic programs including land use studies, historic preservation, public administration, and management. By drawing on all the University resources, the Institute contributes to the solution of regional problems while providing valuable experience for its faculty and students.

The director of ICARD develops projects through personal and professional contacts, and ICARD responds to requests from clients outside the University. Once a project has been identified, a project development committee selects the appropriate staff and project methodologies. Projects are assigned to individual faculty member(s) who serve as project directors and principal investigators.

# STUDENT CONDUCT CODE

Approved by the Board of Regents on December 8, 1976 and amended by the Board of Regents on February 16, 1977.

## 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.
  - (d) Unauthorized possession 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, as well as unauthorized use of vehicles, equipment, or services.
  - (b) **Gambling** Gambling on campus for money or other things of value except as provided by law.
  - (c) Wrongful appropriation of University property or property of a member of the University or visitor, except where properly authorized. (Such animals on campus in violation of this policy are subject to impoundment.) This restriction shall not apply to a leader dog or a guide dog when assisting a blind or visually handicapped person.
5. **Disruptive Conduct**
  - (a) Active participation in or instigation of disruption or obstruction of any University activity including but not limited to functions of the board of control, teaching, research, administration, disciplinary procedures and the public service functions of the University.
  - (b) Disturbance of or harassment of any member of the University community.
6. **Physical Abuse.** 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.

7. **Falsification of Records.** Forgery, alteration or improper use of University documents, records of identification including alteration or transfer to another person of identification cards (which are the property of EMU.)
  8. **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.
  9. **Fire Alarm Systems and Equipment.** Tampering with or misuse of fire alarm systems or firefighting equipment.
  10. **Academic Dishonesty**
    - (a) **Cheating**
      - (1) Any use of another student's work in homework, a quiz, examination, or laboratory assignment.
      - (2) Without the instructor's explicit permission, use of books, notes, or other materials in a quiz or examination, or collaboration with another student on an assignment.
      - (3) Assist another student to cheat on a project, quiz, examination, or laboratory assignment.
    - (b) **Plagiarism:** to incorporate the work of another into one's own work without giving due and appropriate acknowledgement.
  11. **Other University Regulations:** Violation of any other posted or published University regulations, including but not limited to:
    - (a) EMU Policy Manual
    - (b) Terms and conditions of the Residence Hall Contract
    - (c) Spectrum
    - (d) EMU Bulletins: Undergraduate and Graduate Catalogues
- B. OFF-CAMPUS CONDUCT.** Conduct described in the regulations in part A which occurs off-campus may also result in disciplinary action by the University when:
- (a) 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
  - (b) there is a showing to that effect to the satisfaction of a University hearing board to which the case is referred.

## PROCEDURAL RIGHTS OF THE ACCUSED STUDENT

In order to ensure students' rights of procedural due process, the Board of Regents has adopted, as policy, the Procedural Rights of the Accused Students. These rights and the University Judicial Structure provide students with the right for hearings before the dean of students or his or her designee, the University Judicial Board, and the Judicial Appeals Board. Copies of the University Judicial Structure and related policy and procedures regarding Presidential Review and Interim Suspension are available in the Dean of Student's Office, 214 Goodison Hall.

1. The student shall have the right to remain silent.
2. The student shall have the right to an adviser of his or her choice. Such adviser shall be selected from the University community (i.e. current faculty, staff, employees and students) who is a member in good standing.
3. The student shall be presented with a written statement of the charges against him or her.

4. The student must be presented with a written list of his or her rights. Rights 1-4 shall extend to all judicial proceedings, all investigations conducted by the Dean of Student's Office and before any statement is made to the Dean of Student's Office.
5. The student may confront his or her accuser and is guaranteed the right to cross-examine all those testifying against him or her.
6. The student shall have the right to bring witnesses to testify in his or her defense. The University Judicial Board and the Judicial Appeals Board shall have the authority to limit the number of witnesses by a two-thirds (2/3) vote of those members present, in order to avoid dilatory tactics.
7. The student shall have the right to an open or closed hearing at her or his discretion. A hearing shall be deemed to have been open if provision for twenty (20) spectators was made in the hearing room and no person was excluded until the room's capacity was reached except for sequestration or if such person's behavior was disruptive of the atmosphere for the conduct of a fair hearing. A closed hearing means participants only: student(s) charged, adviser(s), Dean of Students and/or disignee(s), witnesses, members of the board.
8. The student may submit to the Dean of Students, University Judicial Board or the Judicial Appeals Board, orally or in writing, a friendly and supportive report of any individual or organization who chooses to intervene in his or her behalf.
9. The student shall have the right to challenge for cause any member of the University Judicial Board or Judicial Appeals Board. Each body shall determine the validity of such challenges.
10. No member of the University Judicial Board or Judicial Appeals Board who is involved with the investigation of a case or is a party to the case shall sit on the Board while the case is being heard. Rights 5-10 shall extend to all cases before the University Judicial Board or Judicial Appeals Board.
11. With the assistance of the Dean of Student's Office, the University Judicial Board and the Judicial Appeals Board must keep official records of each case which the student may examine.

## PENALTIES

The penalties invoked by the University Judicial Structure are provided below.

Discipline is intended to be corrective and educational as well as punitive. It is intended that students 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:

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 status to be not in good standing at the University. There are some programs which require the student to be in good standing in order to participate. Examples are some loans, scholarships, curricular and extracurricular programs. A 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.

## PRESIDENTIAL REVIEW

- A. The authority to suspend or dismiss a student 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 or her designated representative.
- B. All disciplinary penalties assigned through the University judicial and review system which would result in suspension or dismissal of a student from the University shall be reviewed by the President or his or her designee.

## GRADE GRIEVANCE PROCEDURE

### INTRODUCTION

When a student becomes aware of a problem with any grade awarded during the course, the student should immediately contact the instructor to discuss the matter. The Grade Grievance Procedure is to provide students with the opportunity to appeal a final grade in a course because he or she believes that the grade has been awarded capriciously or unfairly.

### STEP I. INSTRUCTOR AND STUDENT (Informal)

If a student wishes to appeal a final grade, the student should contact the instructor immediately. The instructor and student must then set a time and place to discuss the matter privately. Whenever possible, conflicts over grades should be resolved informally between the student and instructor.

### STEP II. DEPARTMENT GRADE GRIEVANCE COMMITTEE (Formal)

If the problem is not resolved to the student's satisfaction and he or she believes the grievance has merit on the facts, the student has the right to file a formal written grievance to the Department Grade Grievance Committee through the appropriate department head. 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. Disagreement with an instructor's judgment in and of itself is not a basis for a grievance.

2. A grievance must be filed within five (5) working days after the instructor's decision regarding the student's appeal at Step II. (A working day is a weekday, Monday through Friday; holidays or days when the University is not open are not considered working days.)
3. A grievance must be filed within twenty (20) working days after the last day of scheduled final examinations for the session in which the grade was awarded.
4. The grievance must state specifically the capricious or unfair action of the instructor. Also at this time, the student should present other evidence or documentation in support of the grievance.

The department head must schedule a hearing before the Department Grade Grievance Committee within fifteen (15) working days of receipt of the formal grievance. Within this fifteen (15) day period, the department head, student, and instructor, shall meet to discuss the grievance. Upon agreement of the instructor and student, the grievance may be resolved at this meeting and the scheduled hearing cancelled.

If the instructor has left the University permanently or for a period to exceed sixty (60) days, the department head shall make a decision either in support of or against the grievance. If the decision is not in support of the grievance, the student shall have the right of appeal to the Department Grade Grievance Committee.

The Department Grade Grievance Committee shall be composed of three (3) faculty members and two (2) students. The committee shall guarantee within the hearing the following minimum protections for the student and instructor:

1. a record shall be kept of the hearing, preferably a taped sound recording;
2. both the student and instructor shall be permitted an adviser - advisers shall be members of the University community, i.e., student or full-time member of the faculty or staff;
3. the hearing shall be open unless the student or instructor requests a closed hearing;
4. student, instructor, adviser(s), and committee members shall be permitted to question all witnesses;
5. the student shall have the right to have his or her grievance heard only by faculty members; and
6. the deliberations of the committee shall be in executive session.

Within five (5) working days of completion of the hearing, the Department Grade Grievance Committee shall present written recommendations to the department head for immediate distribution to the student and the instructor.

The Department Grade Grievance Committee decisions are recommendations and are not binding on the student or instructor. If the student does not agree with the recommendations, he or she may appeal to the appropriate college level appeal board.

### STEP III. COLLEGE LEVEL APPEAL BOARD

Each college shall have an appeal board.

Upon receipt of a department grievance committee recommendation in writing, the student has five (5) working days in which to appeal to an appropriate college level appeal board. The student's appeal shall be in writing, include the reasons for the appeal, and be directed to the appropriate college dean.

Each college level appeal board shall be composed of three (3) faculty members and two (2) students and the board shall guarantee within the hearing the same minimum protections for the student and the instructor as stated previously for the departments' grade grievance committees. The college level appeal boards shall convene a hearing within ten (10) working days of the date the appeal was filed.

Within five (5) working days of completion of the hearing, the college level appeal board shall forward its decision in writing to the student and instructor. This decision shall be the final decision in the Grade Grievance Procedure unless the decision is in support of the student's grievance. In this case, Step IV of the procedure may be invoked by the instructor.

The college level appeal board decision shall be implemented by the appropriate dean.

### STEP IV. UNIVERSITY GRADE GRIEVANCE COMMITTEE

If the college level board decision is unacceptable to the instructor, the instructor shall have the right to appeal to the University Grade Grievance Committee. The instructor's appeal shall be in writing; filed within five (5) working days of receipt of the college level appeal board decision, including the reasons for the appeal, and be directed to the vice-president for Academic Affairs. This committee hearing shall be convened within ten (10) working days of the date the appeal was filed. The committee shall guarantee within the hearing the same minimum protections for the student and instructor as previously stated.

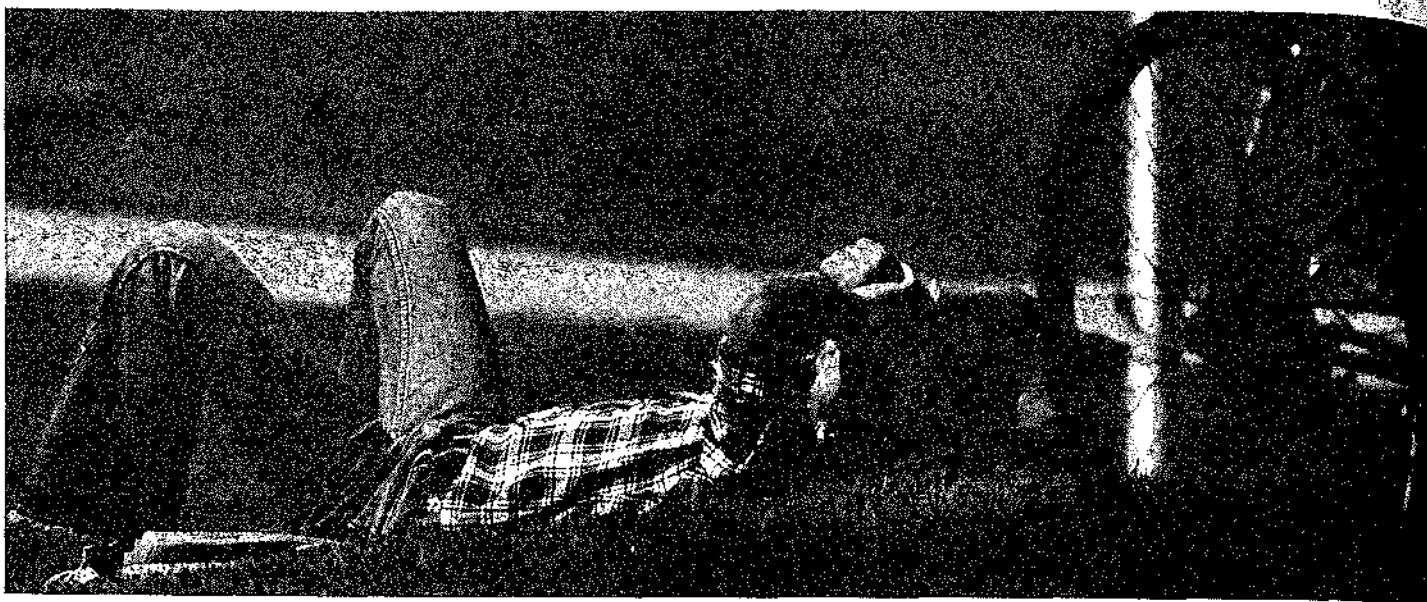
Within five (5) working days of completion of the hearing, the University Grade Grievance Committee shall forward the decision in writing to the student and the instructor. This decision shall be the final step in the Grade Grievance Procedure.

### RECORDS

When the Grade Grievance Procedure results in an instructor's grade being changed without his or her agreement, then all University records 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.

The Eastern Michigan University Grade Grievance Procedure was approved by the Board of Regents on October 18, 1978.





## STUDENT ADMINISTRATIVE GRIEVANCE PROCEDURE POLICY

Students may file a grievance over a dispute arising from allegations of improper or incorrect interpretation or application of University policy, including any alleged discrimination in the application of such policy based upon race, religion, sex, age, national origin or any other illegal discrimination as established by state or federal regulation or law. Traditionally, those matters have been handled in the following manner:

### STEP I. ADMINISTRATOR AND STUDENT (Informal)

Any student who is considering filing a grievance must first discuss the problem with the administrator or staff member whose responsibility it is to enforce the regulation or policy.

### STEP II. DEPARTMENT SUPERVISOR (Formal)

If unable to resolve the dispute at this level, the student shall, if he or she wishes, carry the grievance forward by first reducing the grievance to writing, stating the nature of the grievance and what policy allegedly has been violated or incorrectly interpreted; and the date of the alleged violation or misinterpretation. This written grievance shall be presented to the head of the department, or immediate supervisor of the staff member or administrator enforcing the policy. The University shall not be expected to consider any grievance that is not submitted in writing to the department head or supervisor within twenty-one (21) calendar days of the alleged violation.

Upon receipt of the written grievance, the supervisor or department head shall meet with the student (normally within one week of the receipt of the written grievance) to attempt to resolve the grievance and following such a meeting, promptly provide a written answer. No such written answer may be contrary to University policy.

### STEP III. DIVISION VICE-PRESIDENT

If the grievance is not resolved at Step II, then it shall be forwarded to the vice-president in charge of the division in which the grievance has been filed. Usually within a week of receipt of the grievance, the vice president shall meet with the student filing the grievance and discuss the grievance. Following the discussion, the vice president shall render a decision in writing to the student.

### STEP IV. PRESIDENTIAL APPEAL

If the grievance is not resolved at Step III, the student may appeal to the president of the University. As chief executive officer of the University, the president will make the final decision and he or she may consult with the Executive Council prior to making this decision. Also, the president, if he or she chooses, may elect to conduct an informal hearing with the student.

The Student Administrative Grievance Procedure is to be used for administrative decisions only and is not to conflict with established procedures in the areas of student employment, student discipline, academic affairs area, and other published University student grievance procedures.

## 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 individuals' 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 which contain the names and addresses of the officers and the statement of purpose of the organization are also considered public information. These documents are available in the Campus Life Office, 117 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 Office of the Dean of Students within fourteen (14) days after each term begins.

All questions or requests for access to files are also processed through that office, 214 Goodison Hall.

# FACULTY AND STAFF

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Ed.D., Stanford University
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Ph.D., Loyola University
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Ph.D., University of Michigan
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Ph.D., University of Wisconsin
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B.S., Adrian College
- Franks, Thomas H.** (1967), Associate Professor, History and Philosophy.  
Ph.D., University of Michigan
- Freeman, Lawrence L.** (1969), Associate Professor, Art.  
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Ph.D., University of Tennessee
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Ph.D., George Peabody College
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Ph.D., New York University
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R.T., Mercy Hospital
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Ph.D., Duke University
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Ph.D., Johns Hopkins University
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Ed.D., Wayne State University
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Ph.D., Florida State University
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Ph.D., Northwestern University
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Ph.D., University of Michigan
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M.S., Wayne State University
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Ed.D., University of Michigan
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Ph.D., Clark University
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M.S., University of Michigan
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- Jacob, Hind** (1981), Coordinator, International Projects.  
Ed.D., Temple University
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M.Mus., University of Michigan
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Ph.D., Michigan State University
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Ph.D., Kansas State University
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Ph.D., Kent State University
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B.A., Lander College

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B.S., University of Michigan
- Johnson, Bert M.** (1951), Professor, Biology.  
Ph.D., University of Michigan
- Johnson, David C.** (1973), Assistant Professor, Mathematics and Computer Science.  
Ed.D., University of Georgia
- Johnson, Fred T.** (1967), Professor, Physics and Astronomy.  
Ph.D., Johns Hopkins University
- Johnson, James D.** (1968), Department Head, Associate Professor, Political Science.  
Ph.D., University of Michigan
- Johnson, Judith A.** (1970), Department Head, Professor, English Language.  
Ph.D., University of Michigan
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M.Ed., University of Cincinnati
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Ph.D., Columbia University
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M.S., Eastern Michigan University
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- Upshur, Jiu Hwa** (1971). Associate Professor, History and Philosophy.  
Ph.D., University of Michigan

## V

- Valentine, Susan** (1979). Instructor, Nursing Education.  
M.S., University of Michigan
- Vanderkolk, Mary D.** (1981). Assistant Professor, Nursing Education.  
M.S.N., Wayne State University
- Vander Molen, Andrew** (1978). Assistant Professor, Operations Research and Information Systems.  
Ph.D., University of Michigan
- VanHaren, John E.** (1960). Department Head, Professor, Art.  
M.A., University of Wisconsin
- Van Pelt, Cynthia** (1976). Financial Aid Adviser, Financial Aid.  
B.S., Eastern Michigan University
- Van Riper, B. W.** (1968). Professor, Guidance and Counseling.  
Ph.D., University of Michigan
- Vansyckle, Larry D.** (1981). Assistant Professor, Accounting and Finance.  
M.B.A., University of Michigan
- Van Volkinburg, John** (1980). Associate Director, Food Service.
- VanVoorhees, Florence E.** (1979). Assistant Professor, Special Education.  
Ph.D., University of Michigan
- Venis, Ronald M.** (1966). Assistant Professor, Health, Physical Education, Recreation and Dance; Athletic Trainer, Athletics.  
M.S., Indiana University

- Vick, James (1973), *Manager of Service Operations, Physical Plant.*  
M.A., Eastern Michigan University
- Victor, Gary M. (1974), *Associate Professor, Administrative Services and Business Education.*  
J.D., University of Toledo
- Vielhaber, Mary E. (1977), *Assistant Professor, Management.*  
M.A., University of Michigan
- Voght, Geoffrey M. (1971), *Associate Professor, Foreign Languages and Bilingual Studies.*  
Ph.D., University of Michigan
- Vogt, Michael (1978), *Assistant Professor, Economics.*  
Ph.D., University of Wisconsin
- Volz, Paul A. (1969), *Professor, Biology.*  
Ph.D., Michigan State University

## W

- Waffle, Elizabeth L. (1968), *Associate Professor, Biology.*  
Ph.D., Iowa State University
- Wahi, Kishor N. (1967), *Professor, Teacher Education.*  
Ph.D., University of Michigan
- Waidley, John W. (1968), *Associate Professor, Guidance and Counseling.*  
Ed.D., New York University
- Walker, Glenn K. (1976), *Associate Professor, Biology.*  
Ph.D., University of Maryland
- Wallace, Dale C. (1969), *Professor, Biology.*  
Ph.D., Cornell University
- Walter, James K. (1964), *Assistant Professor, Mathematics and Computer Science.*  
Ph.D., Wayne State University
- Walters, James M. (1981), *Buyer, Purchasing.*  
B.S., Indiana University
- Waltz, James C. (1968), *Professor, History and Philosophy.*  
Ph.D., Michigan State University
- Ward, Robert M. (1969), *Professor, Geography and Geology.*  
Ph.D., University of Michigan
- Warnat, Winifred I. (1981), *Director, National Center on Teaching and Learning.*  
Ph.D., American University
- Warren, Bruce L. (1969), *Director, Institute for the Study of Children and Families; Professor, Sociology.*  
Ph.D., University of Michigan
- Washington, Richard E. (1970), *Associate Professor, Art.*  
M.A., Eastern Michigan University
- Wasik, Claudia B. (1965), *Associate Professor, Health, Physical Education, Recreation and Dance; Head Women's Tennis Coach, Athletics.*  
M.S., Eastern Michigan University
- Wasserman, Ira M. (1969), *Assistant Professor, Sociology.*  
Ph.D., University of Michigan
- Watts, Leroy W. (1969), *Associate Professor, Social Work.*  
M.S.W., University of Iowa
- Wawrzaszek, Frank J. (1957), *Professor, Special Education.*  
Ed.M., Boston University
- Webb, Margaret J. (1967), *Assistant Professor, English Language and Literature.*  
Ph.D., University of Illinois
- Webb, LaVerne W. (1961), *Associate Director, Center of Educational Resources; Head, Media Services, Assistant Professor.*  
Ph.D., University of Michigan
- Webb, Patricia (1981), *Associate Dean, College of Business, Associate Professor, Marketing.*  
D.B.A., Indiana University
- Weeks, C. Wayne (1978), *Assistant Professor, Accounting and Finance.*  
D.B.A., Kent State University
- Weeks, John A. (1968), *Associate Professor, Industrial Technology.*  
Ph.D., University of Michigan
- Weir, Frank F. (1978), *Staff Writer, Information Services.*  
B.F.A., Southern Methodist University
- Weiser, Jerome A. (1967), *Professor, Teacher Education.*  
Ed.D., Wayne State University
- West, Bruce D. (1969), *Associate Professor, Chemistry.*  
Ph.D., University of Wisconsin
- Westerman, W. Scott, Jr. (1971), *Dean, College of Education, Professor, Teacher Education.*  
Ph.D., University of Michigan
- Westman, Alida S. (1972), *Professor, Psychology.*  
Ph.D., Cornell University
- Westrum, Ronald M. (1972), *Associate Professor, Sociology.*  
Ph.D., University of Chicago
- Wheatley, Ira M. (1966), *Department Head, Professor, History and Philosophy.*  
Ph.D., University of Iowa
- White, Bette C. (1970), *Dean of Students.*  
Ph.D., Michigan State University
- White, Patrick T. (1967), *Professor, English Language and Literature.*  
Ph.D., University of Michigan
- Wiermanski, Mary A. (1980), *Executive Assistant to the President.*  
M.A., Glassboro State College
- Wilkening, Nancy (1981), *Instructor, Nursing Education.*  
M.S.N., University of California-San Francisco
- Wilkinson, Helen M. (1969), *Assistant Professor, Center of Educational Resources.*  
M.A., Eastern Michigan University
- Willets, Stanley C. (1966), *Director, Internal Audit.*  
B.A., Great Lakes College
- Williams, Patricia (1976), *Associate Professor, Art.*  
M.F.A., Indiana University
- Williams, Robert J. (1966), *Department Head, Professor, Marketing.*  
Ph.D., Cornell University
- Williams, Roger L. (1968), *Professor, Health, Physical Education, Recreation and Dance.*  
Ed.D., University of Missouri
- Williams, Warren S. (1969), *Professor, Teacher Education.*  
Ed.D., University of Rochester
- Williams, Wilbur A. (1948), *Professor, Teacher Education.*  
Ph.D., University of Michigan  
Ph.D., University of Michigan
- Williamson, Jerry R. (1967), *Associate Professor, Chemistry.*  
Ph.D., University of Iowa
- Williamson, Joel E., *Captain* (1978), *Assistant Professor, Military Science.*  
M.S., University of Southern California
- Williston, Judith C. (1971), *Assistant Professor, Home Economics.*  
M.S., Pennsylvania State University
- Willoughby, Robert J. (1956), *Professor, Health, Physical Education, Recreation and Dance.*  
M.A., University of Michigan
- Wilson, Herbert H. (1966), *Associate Professor, Business and Industrial Education.*  
M.A., West Virginia University
- Wilson, Roselle L. (1971), *Director, Minority Affairs.*  
Ph.D., University of Michigan
- Wilt, Ellen (1970), *Associate Professor, Art.*  
M.A., University of Michigan
- Wimmer, Vega (1979), *Assistant Professor, Special Education.*  
M.A., Wayne State University
- Wingo, Rosetta F. (1968), *Professor, Business and Industrial Education.*  
Ph.D., Michigan State University
- Witten, Charles X. (1969), *Professor, Health, Physical Education, Recreation, and Dance.*  
Ph.D., Ohio State University
- Witten, Winifred (1979), *Assistant Professor, Health, Physical Education, Recreation and Dance.*  
M.S., Eastern Michigan University
- Wittke, Reinhard (1956), *Professor, History and Philosophy.*  
Ph.D., University of Michigan
- Wixom, Charlotte K. (1954), *Assistant Professor, Health, Physical Education, Recreation, and Dance.*  
M.A., Michigan State University
- Wolfe, Christopher (1979), *Assistant Men's Basketball Coach, Athletics.*  
M.S., Akron University
- Wood, Judith A. (1975), *Associate Professor, Nursing Education.*  
M.S.N., University of Michigan
- Woodland, Bill M. (1981), *Assistant Professor, Economics.*  
M.S., Purdue University



**Woods, Ronald C.** (1978), Director, Assistant Professor, Afro-American Studies.

J.D., University of Michigan

**Wooley, Jon K.** (1967), Associate Professor, Physics and Astronomy.

Ph.D., University of Michigan

**Work, Stewart D.** (1964), Professor, Chemistry.

Ph.D., Duke University

**Workman, Edward E.** (1981), User Consultant, University Computing.

B.A., Fresno State College

**Woronoff, Israel** (1956), Professor, Teacher Education.

Ph.D., University of Michigan

**Wree, George W.** (1957), Operations Supervisor, University Computing.

**Wright, Eleanor** (1979), Assistant Professor, English Language and Literature.

M.S., Northwestern University

**Wright, Richard** (1972), Assistant Professor, English Language and Literature.

M.A., University of Detroit.

**Wright, Sandra** (1978), Director of Non-Credit Programs, Continuing Education.

Ph.D., Bowling Green State University

**Wrotny, Cathy** (1978), Assistant Professor, Nursing Education.

M.S.N., University of Michigan

**Wu, Nesa L. J.** (1974), Professor, Operations Research and Information Systems.

Ph.D., Purdue University

## Y

**Yager, Jay R.** (1968), Professor, Art.

M.F.A., University of Wisconsin

**Yahrmatter, Arthur J.** (1968), Associate Professor, Communication and Theater Arts.

Ph.D., Southern Illinois University

**Yamauchi, Masanobu** (1965), Professor, Chemistry.

Ph.D., University of Michigan

**Yeakle, Myrna A.** (1965), Associate Professor, Health, Physical Education, Recreation and Dance.

Ph.D., The Ohio State University

**Yost, Mary Ida** (1968), Professor, Music.

A.Mus.D., University of Michigan

**Young, Kenneth C.** (1974), Associate Professor, Operations Research and Information Systems.

Ph.D., Purdue University

**Young, Phyllis A.** (1972), Instructor, Home Economics.

M.A., Eastern Michigan University

**Youssef, Zakhour I.** (1965), Professor, Psychology.

Ph.D., Wayne State University

**Yu, Shih-An** (1967), Professor, Biology.

Ph.D., University of New Hampshire

## Z

**Zabawa, Paul L.** (1966), Associate Director, Academic Records and Certification.

Ed.S., Eastern Michigan University

**Zahratka, Michael** (1966), Associate Professor, Art.

M.F.A., Syracuse University

**Zambito, Stephen C.** (1963), Professor, Teacher Education.

Ph.D., University of Michigan

**Zeiger, Michael** (1979), Assistant Professor, Mathematics and Computer Science.

Ph.D., University of Michigan

**Zellers, Parker R.** (1964), Professor, Communication and Theater Arts.

Ph.D., State University of Iowa

**Ziefert, Marjorie** (1981), Assistant Professor, Social Work.

M.S.W., Columbia University

**Zirk, Willard D.** (1981), Instructor, Music.

M.M., Catholic University of America

## EMERITUS FACULTY

## A

- Anderson, Carl R.**, A.B., A.M., LL.D., Sc.D. (Hon)  
Associate Professor Emeritus, History, Vice President, Public Affairs
- Anderson, Normajean I.**, A.B., B.C.S., M.S.  
Associate Professor Emeritus, Administrative Services and Business Education
- Ashton, Charles R.**, A.B., M.B.A.  
Associate Professor Emeritus, Marketing

## B

- Ballew, M. Esther**, A.B., A.M.  
Associate Professor Emeritus, English Language and Literature
- Belcher, Robert O.**, B.A., M.S., Ph.D.  
Professor Emeritus, Biology
- Bensen, Alice R.**, A.B., M.A., Ph.D.  
Professor Emeritus, English Language and Literature
- Bentley, Mabel L.**, B.S., A.M.  
Assistant Professor Emeritus, Supervising Teacher, Special Education
- Berry, Leona P.**, A.B., M.S., M.A.L.S.  
Associate Professor Emeritus, Center of Educational Resources
- Bilsky, Manuel**, B.A., M.A., Ph.D.  
Professor Emeritus, History and Philosophy
- Birleson, Clifford**, B.A., M.A.  
Associate Professor Emeritus, Curriculum and Instruction
- Blackenburg, Howard**, A.B., A.M., Ph.D.  
Professor Emeritus, History
- Bogusch, Barbara**, B.S., A.M., Ph.D.  
Professor Emeritus, Curriculum and Instruction
- Boughner, Ruth L.**, B.S., M.S.  
Associate Professor Emeritus, Physical Education
- Breedlove, Charles B.**, B.S., M.S., Ed.D.  
Professor Emeritus, Physics and Astronomy
- Brownrigg, William J.**, B.S., A.M.  
Emeritus Director of Academic Advising
- Brumbaugh, Russel**, B.A., M.A.  
Associate Professor Emeritus, Education
- Buckholts, Paul O.**, A.A., B.A., M.A., Ph.D.  
Professor Emeritus, Geography and Geology

## C

- Calkins, Kingsley**, B.S., M.A.  
Professor Emeritus, Head, Department of Art
- Carr, Marvin S.**, A.B., A.M., Ph.D. (Ch.E.)  
Professor Emeritus, Chemistry
- Collins, Oscar W.**, B.S., M.Ed., Ed.D.  
Professor Emeritus, Accounting and Finance
- Cooper, Virginia**, B.A., M.A.  
Associate Professor Emeritus, English Language and Literature
- Curtis, Martha E.**, A.B., A.M., Ph.D.  
Professor Emeritus, Natural Sciences

## D

- Dart, Jane M.**, B.F.A., M.A.  
Professor Emeritus, Art
- DeVries, Harry**, A.B., M.A., Ph.D.  
Professor Emeritus, History and Social Sciences
- Disbrow, Donald W.**, A.B., Ph.D.  
Professor Emeritus, History and Philosophy
- Duvall, Elven E.**, B.A., M.A., Ed.D.  
Professor Emeritus, Educational Leadership

## E

- Early, Madeline**, B.A., M.A., Ph.D.  
Professor Emeritus, Mathematics
- Elliott, Lucy A.**, B.S., A.M.  
Manager Emeritus, Women's Residence Halls and Professor Emeritus, Head, Department of Home Economics
- Engelsman, Anthony**, A.B., A.M.  
Professor Emeritus, Political Science
- Erickson, Walfred E.**, B.Ed., B.S., M.A., Ph.D.  
Professor and Head Emeritus, Library
- Erikson, Edith A.**, A.B., B.S., A.M.  
Associate Professor Emeritus, Business

## F

- Fenwick, Ruth G.**, B.S.M., M.A.  
Associate Professor Emeritus, Music
- Fielder, Anita L.**, B.Ed., M.S., Special Education  
Professor Emeritus, Home Economics
- Fitch, William D.**, B.S., M.S., Ph.D.  
Professor Emeritus, Music
- French, Sophie L.**, A.B., M.A.  
Assistant Professor Emeritus, Special Education

## G

- Gates, Mary Frances**, B.S., M.S., Ph.D.  
Professor Emeritus, Education
- Gaston, Hugh P.**, A.B., M.S.  
Assistant Professor Emeritus, Guidance and Counseling
- Gesler, Ralph**, B.S., M.A.  
Associate Director Emeritus, Field Services
- Gex, R. Stanley**, B.S., M.A., Ed.D.  
Dean Emeritus, College of Education; Professor Emeritus, Teacher Education
- Gibson, Eugene M.**, B.A., M.A., Ph.D.  
Professor Emeritus, Foreign Languages and Bilingual Studies
- Gibson, Sibylla A.**, B.A., M.A., M.L.S.  
Assistant Professor Emeritus, Center of Educational Resources
- Giles, Richard A.**, B.S., M.S., Ph.D.  
Professor Emeritus, Head, Biology
- Glasgow, James H.**, B.Ed., M.A., Ph.D.  
Dean Emeritus, Graduate School; Department Head and Professor, Geography and Geology
- Goings, Edmond W.**, A.B., M.S.  
Professor Emeritus, Mathematics, Instructional Computer Service
- Gosseaux, Emile F.**, B.S., A.M.  
Assistant Professor Emeritus, Curriculum and Instruction

## H

- Harris, Augusta**, B.S., M.A.  
Professor Emeritus, Health, Physical Education and Recreation
- Hester, Kathleen B.**, B.S., M.A., Ph.D., Litt.D. (Hon)  
Professor Emeritus, Education
- Hill, Susan B.**, B.S., M.A.  
Dean Emeritus, Students
- Hoover, Neal F.**, A.B., M.A.  
Assistant Professor Emeritus, Education; Assistant Dean, Graduate School
- Howe, Marvin C.**, B.M., B.Sch. Mus., M.S., M.F.A., Ph.D.  
Professor Emeritus, Music
- Hubbell, Paul E.**, A.B., A.M., Ph.D.  
Professor Emeritus, History

## J

- James, Dorothy**, B.Mus., M.Mus., D.M.A.  
Professor Emeritus, Music
- Jones, Vernon H.**, B. Ed., M.A.  
Associate Professor Emeritus, Pre-Student Teaching
- Jordan, Hoover**, H.B.A., M.A., Ph.D., Ed.D. (Hon)  
Professor Emeritus, English Language and Literature

## K

**Kilanski, Doris M.**, B.A., M.A., Sp.A., Ph.D.  
Associate Professor Emeritus, Educational Leadership

## L

**LaBounty, Raymond A.**, B.S., M.A., Ed.S.  
Professor Emeritus, Industrial Education, Vice President for Administration

**Lamkin, Ervin**, B.S., M.S.  
Associate Professor Emeritus, Chemistry

**Lanning, Dorothy**, B.S., M.F.A.  
Professor Emeritus, Art

**Langman, Muriel**, A.B., A.M., Ph.D.  
Professor Emeritus, Curriculum and Instruction

**Langworthy, Lucille**, A.B., A.M.  
Associate Professor Emeritus, Supervising Teacher, Roosevelt High School

**Leatherman, Roger L.**, B.A., N.A., Ph.D.  
Professor Emeritus, Social Foundations

## M

**MacDonald, Alister**, B.A., M.A.  
Associate Professor Emeritus, Curriculum and Instruction

**Maddox, Notley S.**, B.S., A.M., Ph.D.  
Professor Emeritus, English Language and Literature

**Magoon, Donald W.**, B.S., M.E., M.S., M.B.A.  
Associate Professor Emeritus, Management

**Marshall, Albert P.**, A.B., B.L.S., M.A.  
Professor Emeritus, Center of Educational Resources

**Marshall, Everett L.**, B.Ed., M.A., Ph.D., L.H.D. (Hon)  
Professor Emeritus, Education; Dean Emeritus, Academic Records and Teacher Certification

**Maxfield, Grace K.**, A.B., B.S.L.S.  
Associate Professor Emeritus, Center of Educational Resources

**McAndless, Thelma**, B.S., B.M., M.A.  
Professor Emeritus, English

**McCalla, Helen**, Controller Emeritus

**McLeod, Cecil R.**, B.A., M.A., M.S.L.S.  
Assistant Professor Emeritus, Educational Resources

**Miller, Marjorie M.**, A.B., M.A.  
Professor Emeritus, English Language and Literature

**Myers, Allen**, B.M., M.M., M.A., Ph.D.  
Dean Emeritus, College of Education, Professor Emeritus, Special Education

## N

**Nelson, Bruce K.**, B.A., M.A., Ph.D.  
Professor Emeritus, Educational Leadership, Vice President, Instruction

**Nelson, Herbert L.**, B.S., M.A.  
Assistant Professor Emeritus, Industrial Technology and Industrial Education

## O

**O'Connor, M. Ethel**, B.S., A.M.  
Associate Professor Emeritus, Supervising Teacher, Elementary

**Olds, Lloyd W.**, A.B., M.S., Dr. P.H., LL.D. (Hon)  
Professor Emeritus, Head, Department of Health, Physical Education, Recreation and Athletic Director

**Osadchuk, Mitchell M.**, B.A., M.M.  
Associate Professor Emeritus, Music

**Osborn, Carroll A.**, B.A., B.S., M.A.  
Professor Emeritus, Industrial Education

## P

**Parsons, Karl A.**, A.B., M.S.  
Professor Emeritus, Physics and Astronomy

**Pate, Robert S.**, B.A., M.A., Ph.D.  
Professor Emeritus, Head, Mathematics

**Peterson, Ralph G.**, B.S., M.A.  
Associate Professor Emeritus, Curriculum and Instruction

**Potter, Edward E.**, A.B., A.M., Ph.D.  
Professor Emeritus, English Language and Literature

**Pyle, Hershhal O.**, B.M., M.A.  
Professor Emeritus, Music

## R

**Riley, Maurice W.**, A.B., M.A., M.M., Ph.D.  
Professor Emeritus, Music

**Risk, Norman W.**, B.S., M.A.  
Professor Emeritus, Industrial Education

**Robbins, Omer E., Jr.**, B.S., M.S., Ph.D.  
Dean Emeritus, Graduate School, Professor Emeritus, Chemistry

**Robinson, Julius M.**, B.S., M.A., Ed.D.  
Dean Emeritus, Summer and Evening Sessions, Professor Emeritus, Business Studies

**Robinson, Margaret**, A.B., M.A., M.A.L.S.  
Associate Professor Emeritus, Education

**Rogers, Agnes L.**, B.A., M.A., M.S.  
Associate Professor Emeritus, Special Education and Occupational Therapy

**Roser, Gertrude**, B.A., A.M.  
Assistant Professor Emeritus, Principal of Rockham School of Special Education

**Rossiter, Margaret L.**, A.B., M.A., Ph.D.  
Professor Emeritus, History and Philosophy

**Roth, Earl A.**, B.S., A.M., Ed.D.  
Dean Emeritus, College of Business; Professor Emeritus, Marketing

**Rudin, Helen B.**, B.S., M.A.  
Counselor Emeritus, Counseling Center

**Russell, Wilma, I.**, B.S., M.A., Ph.D.  
Professor Emeritus, Curriculum and Instruction

## S

**Sattler, John W.**, B.A., M.A., Ph.D.  
Professor Emeritus, Head, Speech and Dramatic Arts

**Scott, Jean O.**, B.A., M.A.  
Assistant Professor Emeritus, Curriculum and Instruction

**Selby, Carol E.**, A.B., B.S.L.S., A.M.  
Professor Emeritus, Center of Educational Resources

**Simpson, John W.**, A.B., M.A., Ph.D.  
Professor Emeritus, Economics

**Snyder, Carl D.**, B.S., A.M., D.S.Sc.  
Professor Emeritus, Economics

**Solomon, Samuel R.**, A.B., A.M., Ph.D.  
Professor Emeritus, Political Science

**Stanley, Kenneth W.**, B.A., M.S.  
Associate Professor Emeritus, Guidance and Counseling

**Steffek, Ralph L.**, B.A., M.A., Ph.D.  
Assistant Director Emeritus, Field Services

**Stevens, Erma Muckenhirn**, B.S., M.A., Ph.D.  
Professor Emeritus, Director, Continuing Education

**Stevens, Florence L.**, B.S., A.M., M.A.L.S.  
Associate Professor Emeritus, Center of Educational Resources

**Studd, Earl K.**, B.A., M.S.  
Assistant Professor Emeritus, Educational Leadership and Director Emeritus, Field Services

**Sundquist, Jean S.**, B.S., M.M.  
Associate Professor Emeritus, Music

**Swales, Frances Herrick**, A.B., B.S., M.A.  
Professor and Director Emeritus, Occupational Therapy



## T

- Thomas, Clinton E.**, B.S., M.S.  
*Associate Professor Emeritus, Physics and Astronomy*
- Treado, Bernard**, A.B., M.A.  
*Associate Professor Emeritus, Special Education*
- Trosko, Fred**, B.S., M.A.  
*Associate Professor Emeritus, Health, Physical Education and Recreation*

## U

- Underbrink, Eula**, B.Ed., A.M.  
*Associate Professor Emeritus, Home Economics*

## V

- Vandenbelt, Ben H.**, A.B., M.A.  
*Associate Professor Emeritus, Superintendent of Lincoln School*
- Virtue, John**, A.B., M.A., Ph.D.  
*Professor Emeritus, English Language and Literature*

## W

- Waugh, Edgar W.**, A.B., M.A., LL.D. (Hon)  
*Professor Emeritus, History and Social Sciences*
- Wells, Phillip G.**, B.S., M.S., Ed.D.  
*Professor Emeritus, Social Foundations*
- Wescott, John T.**, B.S., M.A.  
*Associate Professor Emeritus, Industrial Education*
- Wilcox, William F.**, A.B., M.A.  
*Associate Professor Emeritus, Physics and Astronomy*
- Wilson, Lucile**, B.S., M.Ed.  
*Assistant Professor Emeritus, Lincoln School*
- Wright, Sara E.**, B.S., M.A.  
*Associate Professor Emeritus, Special Education and Occupational Therapy*

## Y

- Ylisto, Ingrid P.**, A.B., M.A., Ph.D.  
*Professor Emeritus, Curriculum and Instruction*

## Z

- Zickgraf, P. Louis**, A.B., A.M., Ph.D.  
*Professor Emeritus, History and Philosophy*

# STATISTICAL INFORMATION

## DIPLOMAS AND CERTIFICATES GRANTED JULY 1, 1979 — JUNE 30, 1980

Date Granted	SPEC.	MASTER'S						BACHELOR'S						Provisional Certificates		Total	
		A.M.	M.F.A.	M.S.	M.Bus Ed.	M.Bus. Ad.	A.B.	B.S.	B.Art Ed.	B.Bus Ed.	B.Mus Ed.	B.Bus Ad.	B.Fin Art	Elem.	Sec.		
Aug. 1979	11	280	2	35	6	8	6	203	1	1		2	73	2	30	23	683
Oct. 1979	2	26		7	1	2		16		1			2	1	1	5	64
Dec. 1979	13	198	1	42	2	27	26	380	4	3	1	9	169	24	164	84	1,147
Apr. 1980	10	215	2	56	3	34	23	448	3	4	5	7	160	31	139	86	1,226
June 1980	3	213	4	32	3	9	14	220	2	1	1	2	101	10	59	27	701
<b>TOTAL</b>	<b>39</b>	<b>932</b>	<b>9</b>	<b>172</b>	<b>15</b>	<b>80</b>	<b>69</b>	<b>1,267</b>	<b>10</b>	<b>10</b>	<b>7</b>	<b>20</b>	<b>505</b>	<b>68</b>	<b>393</b>	<b>225</b>	<b>3,821</b>

Deduct. counted twice .....	563
Total number of students .....	3,258
Total Specialist's Degrees .....	39
Total Master's Degrees .....	1,208
Total Bachelor's Degrees .....	1,956
Total Provisional Teaching Certificates .....	618
Total 2-year Business Technical Certificates .....	2
Total Certificates of Advanced Study in Curriculum and Instruction .....	3
	<u>3,826</u>

## DIPLOMAS AND CERTIFICATES GRANTED JULY 1, 1980 — JUNE 30, 1981

Date Granted	SPEC.	MASTER'S						BACHELOR'S						Provisional Certificates		Total	
		A.M.	M.F.A.	M.S.	M.Bus Ed.	M.Bus. Ad.	A.B.	B.S.	B.Art Ed.	B.Bus Ed.	B.Mus Ed.	B.Bus Ad.	B.Fin Art	Elem.	Sec.		
Aug. 1980	12	248	3	49	4	6	5	212		1	2	2	100	5	39	10	698
Oct. 1980	3	28	2	10		1	2	21					11	4	2	4	95
Dec. 1980	8	213	1	56	3	41	32	414	3	4		6	162	15	156	65	1,179
Apr. 1981	13	209	1	52	1	41	22	439	1	2		3	157	28	110	78	1,157
June 1981	10	209	3	17	2	23	7	206	1	2		3	111	9	55	22	680
<b>TOTAL</b>	<b>46</b>	<b>907</b>	<b>10</b>	<b>184</b>	<b>10</b>	<b>112</b>	<b>68</b>	<b>1,299</b>	<b>5</b>	<b>9</b>	<b>2</b>	<b>14</b>	<b>541</b>	<b>61</b>	<b>362</b>	<b>179</b>	<b>3,809</b>

Deduct. counted twice .....	498
Total number of students .....	3,311
Total Specialist's Degrees .....	46
Total Master's Degrees .....	1,223
Total Bachelor's Degrees .....	1,999
Total Provisional Teaching Certificates .....	541
Total 2-year Business Technical Certificates .....	2
Total Certificates of Advanced Study in Curriculum and Instruction .....	3
	<u>3,814</u>



**RECOMMENDATIONS FOR CONTINUING  
CERTIFICATES SUBMITTED TO THE STATE  
DEPARTMENT OF EDUCATION  
JULY 1, 1979 through JUNE 30, 1981**

	Elementary 30-Hour Continuing	Secondary 30-Hour Continuing	Elementary Secondary Combined 30-Hour Continuing	Elementary 18-Hour Continuing	Secondary 18-Hour Continuing	Elementary Secondary Combined 18-Hour Continuing	TOTAL
TOTAL (1979-1980)	425	309	61	393	271	24	1,483
(1980-1981)	635	313	94	340	218	26	1,630

**VOCATIONAL CERTIFICATE RECOMMENDATIONS 1979-81**

	Previously Certified (Secondary Certificates at earlier date)				Provisional Certificate Concurrently				Grand Total
	Bus. Educ.	Home Econ.	Indust. Educ.	Total	Bus. Educ.	Home Econ.	Indust. Educ.	Total	
TOTAL	N.A.	N.A.	N.A.	311	2	15	9	26	347

**ENROLLMENTS**

Enrollment (official):	1980	1981
Winter Semester .....	18,909	17,556
Spring Session .....	10,168	8,783
Summer Session .....	5,859	5,457
Fall Semester .....	19,415	N.A.



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Throughout the programs of study given in this catalog and in the course descriptions and prerequisites, a department prefix or code often is used preceding the course number and

title to identify courses. The table below provides the prefixes and their department as well as the subject area.

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AAS	Afro-American Studies	47	IT	Industrial Technology	275
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AMU	Applied Music	141	LAW	Law	186
ANT	Anthropology	166	LIT	Literature	94
AST	Astronomy	150	MGT	Management	182
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BE	Business Education	266	MKT	Marketing	185
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BOT	Botany	57	MTH	Mathematics	131
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DAN	Dance	200	PED	Physical Education	198
ECE	Early Childhood Education	215-219	PEG	Physical Education Activity — General	201
ECO	Economics	87	PEP	Physical Education Activity — Majors	202
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FLA	Foreign Language	105	SHI	Special Education — Hearing Impaired	210
FRN	French	101	SLD	Special Education — Learning Disabilities	209
G&C	Guidance and Counseling	196	SLI	Special Education — Speech and Language Impaired	210
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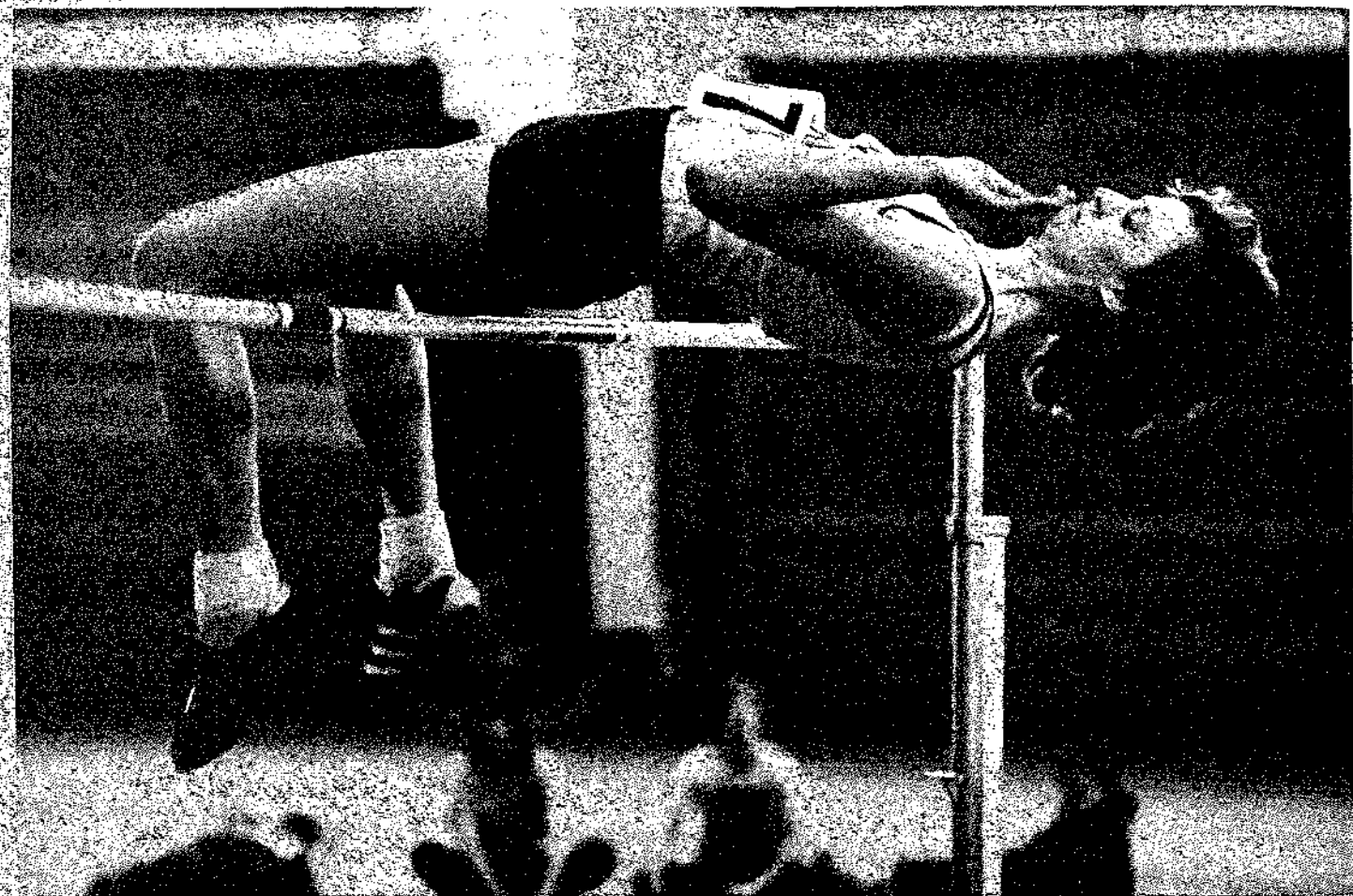
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